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KUMAUN DIVISION.

Kumaun Division.

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KUMAUN DIVISION.

Kumaun.—Most northern Division of the United Provinces, situated almost entirely in the Himālayas and extending from the borders of Tibet to the damp submontane tract known as the Tarai. The Division is bounded on the north by Tibet; on the east by Nepāl; on the south by the Bareilly Division and Rāmpur State, and on the west by the Tehri State and Dehra Dūn District. It lies between $28^{\circ} 51'$ and $31^{\circ} 5'$ N. and between $78^{\circ} 12'$ and $81^{\circ} 3'$ E., with a total area of 13,725 square miles; but although it is thus the second Division in size in the Provinces to which it belongs, it is sparsely inhabited, and the density of population, 88 to the square mile, is but one-fifth of the average. Population is rising steadily: 1872, 928,823; 1881, 1,046,263; 1891, 1,181,567; 1901, 1,207,030. In 1901 Hindus numbered more than 92 per cent. of the total and Muhammadans only 7 per cent. Half of the Muslim population is to be found in the TARAI portion of the Nainī Tāl District. Christians number 3,508, of whom 2,276 are natives, and no other religion is represented by more than a few hundred followers. The headquarters of the Commissioner are at Nainī Tāl, which is also the summer capital of the United Provinces. Kumaun contains three Districts, as shown below:—

			Area in square miles.	Population, 1901.	Revenues and cesses for 1903-04 in thousands of rupees.
Nainī Tāl	...	...	2,677	311,237	2,23,
Almorā	...	...	5,419	405,603	2,59,
Garhwāl	...	...	5,629	429,900	1,68,
Total	...	...	<u>13,725</u>	<u>1,207,030</u>	<u>6,50.</u>

Nainī Tāl lies partly on the outer ranges of the Himālayas, but most of it is included in the waterless tract at their feet known as the Bhābar, and the moist country below, which is called the Tarai. The other two Districts are chiefly situated in the Himālayas, and include the highest peaks within the British Empire. The Division contains 10,041 villages and 12 towns, all of which

are small. The largest towns are NAINI TAL (15,164 in hot weather and 7,609 in winter with cantonment), KASHIPUR (12,023), and ALMORA (8,596). Kāshipur, HALDWANI, TANAKPUR, SRINAGAR, KOTDWARA, and DWARAHAT are the principal places of commercial importance. There are many famous Hindu temples and places of pilgrimage, chief among which are the shrines of BADRINATH and KEDARNATH. The tenures in the hill tracts differ considerably from those in the rest of the Province. Before British rule the normal system had been a kind of *ryot-wāri*. Each village contained a number of cultivators called *khaikar*, who held hereditary, but not transferable, rights. During the Gurkha supremacy grants of cultivated land were often made to persons who were known as *thāt-wān*, the word *thāt* meaning village or property in a village. Such grants could be abrogated at will by the governing power. The *khaikars* paid to the *thāt-wān* the revenue assessed on the village and, in addition, certain dues and small cash rents. On the conquest by the British the *thāt-wān* or, if there were none of these, the *khaikars* received proprietary rights. All landholders are now called *hissdārs*, whatever their origin; but the name *khaikar* is used to describe the actual occupants of villages which were originally granted to a *thāt-wān*. The *khaikars* have heritable, but not saleable, rights, though sub-letting and even mortgage are allowed. They do not pay rent, but pay the Government revenue *plus* a *mālīkāna*, which is generally 20 per cent. in Garhwāl and 25 per cent. in Almora. There are few tenants-at-will, and *khaikari* rights are not acquired by prescription, though they are sometimes conferred at settlement. The Tarai is administered as a Government estate, while in the Bhābar the tenures are partly those of the hills and partly those of the Tarai and the plains. The gross revenues from all sources raised in this Division have been in thousands of rupees:—

1880-81.	1890-91.	1900-01.	1903-04.
11,25,	12,03,	15,08,	16,37,

Details by Districts are not tabulated separately.

Naini Tāl District.—Southern District in the Kumaun Division, United Provinces, lying between 28° 51' and 29° 37' N. and between 78° 43' and 80° 5' E., with an area of 2,677 square miles. It is bounded on the north by the Districts of

Bounded
by rivers, con-
figuration,
and hill
and river
systems.

Almorā and Garhwāl; on the east by Almorā and by Nepalese territory; on the west by the Garhwāl and Bijnor Districts; and on the south by Pilibhit, Barcilly, Morādābād, and the Rāmpur State. About one-sixth of the District lies in the outer ranges of the Himālayas, the chief of which is known as GAGAR. These rise abruptly from the plains to a height of 6,000 or 7,000 feet and are clothed with forest. The scenery is strikingly beautiful, and from the tops of the higher peaks, which reach a height of nearly 9,000 feet, magnificent views can be obtained of the vast level plain to the south, or of the mass of the tangled ridges lying north, bounded by the great snowy range which forms the central axis of the Himālayas. Immediately below the hills stretches a long narrow strip of land called the BHĀBAR, in which the mountain torrents sink and are lost, except during the rains, beneath the boulder formation which they themselves have made. The Bhābar contains vast forest areas, and is scantily cultivated. The remainder of the District is included in the damp moist plain known as the TARAI and the KĀSHIPUR *tahsil*. On the northern edge of the Tarai springs appear, which gradually form rivers or small streams, and give a verdant aspect to the country throughout the year. Kāshipur, in the south-west corner, is less swampy and resembles the adjoining tracts in Rohilkhand. None of the rivers in the District rises in the snowy range except the SARDA, which just touches the eastern boundary. The main drainage lines of the hill country are those of the Kosi, Golā, and Nandhaur. The Kosi rises in the Almorā District and the Golā and the Nandhaur in the southern slopes of the outer hills. All three rivers eventually join the RĀMGANGA, the Golā being known in its lower courses as the Kichhā, and the Nandhaur as the Deohā, and later as the Garrā. The smaller watercourses of the Bhābar and Tarai are innumerable, and change their names every few miles, but all eventually drain into the Rāmgangā. In the hills are several lakes of some size and considerable beauty, the chief being Nainī Tāl, Bhīm Tāl, Malwā Tāl, Sāt Tāl, Naukuchhiyā Tāl, and Khurpā Tāl.

The flora of the District presents a great variety. In the Botany. Tarai the ordinary trees and plants of the plains are found. The Bhābar forests consist to a large extent of *sāl* (*Shorea*

robusta); but as the hills are ascended the flora changes rapidly and European trees and plants are seen.*

Geology. The Tarai consists of a zone of recently-formed Gangetic alluvium, while the Bhābar is a gently sloping mass of coarse gravels still being formed from the debris brought down by streams from the hills. A sub-Himālayan zone of low hills, including the Kotāh Dūn, which resembles the SIWALIKS, and the valley of the Nandhaur, contains deposits of the upper tertiary age, chiefly the Nāhan sandstone. This zone is separated from the Himālayas by a reversed fault. The higher hills comprise an older set of slates and quartzites; a massive dark dolomite or limestone; beds of quartzite and basic lava flows, and possibly other schistose and granitic rocks. The steep slopes acted on by heavy rainfall have from time to time given way in landslips of considerable size.†

Fauna. Owing to the wide range of climate and elevation, most of the animals of both the plains and hills of upper India are found in this District. A few elephants haunt the Bhābar and part of the Tarai, while tigers and leopards range from the plains to the hills. The wolf, jackal, and wild dog are also found. The Himālayan black bear (*Ursus tibetanus*) lives in the hills, and the sloth bear (*Ursus labiatus*) in both Bhābar and Tarai. The *Sāmbhar* or *jarau*, spotted deer, swamp deer, hog-deer, barking-deer, four-horned antelope, *nīlgai*, antelope, Himālayan chamois or *gural*, and forest goat also occur. Many kinds of snakes are found, including immense pythons which sometimes attain a length of 30 feet. The District is also rich in bird life and about 450 species have been recorded. Fish are plentiful, and fishing in the lakes and some of the rivers is regulated by the grant of licences.

**Climate
and tem-
perature.**

The climate of the Tarai and to a lesser extent of the Bhābar is exceedingly unhealthy, especially from May to November. Few people, except the Thūrus and Boksās, who seem feverproof, are able to live there long.

* For a complete list of plants found, see Chapter VIII, *N.-W. P. Gazetteer*, Vol. X, 1882.

† *Records of Geological Survey of India*, Vol. XXIII, parts 1 and 4, and Vol. XXIV, part 2. T. H. Holland, *Report on Geological Structure of hill slopes near Naini Tal*.

In the hills the climate is more temperate, and the annual range on the higher slopes is from about 26° in January, when snow falls in most years, to 85° in June.

The rainfall varies as much as the climate. At Kāshipur, Rainfall south of the Tarai, only 46 inches are received; while at Haldwānī, in the Bhābar, the average fall is nearly 77. Nainī Tāl is still wetter, and receives 95 inches annually, including snow.

Traditions connect many places in the hills with the story of History. the Mahābhārata. The earliest historical record is to be found in the visit of Hiuen Tsiang, who describes a kingdom of Govisāna, which was probably in the Tarai and Bhābar, and a kingdom of Brahmapura in the hills. The Tarai then appears to have relapsed into jungle, while the hills were included in the dominion of the Katyūri Rājās, of whom but little is known. They were succeeded by the Chands, who claimed to be Sombansī Rājputs from JHUSI in the Allahābād District, and first settled south of Almorā and in the Tarai. The Musalmān historians mention Kumaun in the 14th century, when Gyān Chand proceeded to Delhi and obtained from the Sultān a grant of the Bhābar and Tarai as far as the Ganges. The lower hills were, however, held by local chiefs, and Kīrati Chand (1488—1503) was the first who ruled the whole of the present District. When the Mughal empire was established the Musalmāns formed exaggerated ideas of the wealth of the hills, and the governor of the adjoining tract occupied the Tarai and Bhābar and attempted to invade the hills, but was foiled by natural difficulties. The Ain-i-Akbarī mentions a *sarkār* of Kumaun, but the *mahāls* included in it seem to refer to the submontane tract alone. The Chand Rājās were chiefly occupied with the hill tracts; but Bāz Bahādur (1638—1678) visited Shāh Jahān at Delhi, and in 1655 joined the Mughal forces against Garhwāl, and recovered the Tarai. In 1672 he introduced a poll-tax, the proceeds of which were remitted to Delhi as tribute. One of his successors, named Debi Chand (1720—1726) took part in the intrigues and conspiracies of the Afghāns of Rohilkhand and even faced the imperial troops, but was defeated. In 1744 Ali Muhammad, the Rohilla leader, sent a force into the Chand territory and penetrated through Bhīm Tāl in this District to Almorā; but the

Rohillas were ultimately driven out. A reconciliation was subsequently effected; troops from the hills fought side by side with the Rohillas at Pānīpat in 1761, and the lowlands were in a flourishing state. Internal dissensions followed, and the government of the plains became separated from that of the hills, part being held by the Nawāb of Oudh and part by Brāhmans from the hills. In 1790 the Gurkhas invaded the hill tracts, and the Chands were driven to the Bhābar and finally expelled. The Tarai and Kāshipur were ceded to the British by the Nawāb of Oudh in 1801 with the rest of Rohilkhand. In 1814 war broke out between the British and Nepalese, and a force marched from Kāshipur in February 1815. Almorā fell in two months and Kumaun became British territory. The later history of the District is a record of administrative details till 1857. The inhabitants of the hills took no part in the great Mutiny; but from June there was complete disorder in the plains, and large hordes of dacoits invaded the Bhābar. Unrest was spreading to the hills; but martial law was proclaimed by Sir Henry Ramsay, the Commissioner, and the danger passed. The rebels from Rohilkhand seized Haldwānī near the foot of the hills, and attempts were made to reach Naini Tal, but without success. By February, 1858, the rebels were practically cleared out of the Tarai, and there was no further trouble.

Archæo-
logy.

There are considerable areas of ruins in the Tarai and Bhābar which have not been properly explored. Near Kāshipur bricks have been found bearing inscriptions of the 3rd or 4th century A.D. The temple at Bhīm Tal built by Bāz Bahādur in the 17th century is the chief relic of the Chands.

The pop-
ple.

The District contains 7 towns and 1,513 villages. Population increased considerably between 1872 and 1891, and was then checked by a series of adverse seasons: 1872, 263,956; 1881, 339,667; 1891, 356,881; 1901, 311,237. The Tarai and Bhābar contain a large fluctuating population. There are four divisions corresponding to the *tahsils* of Districts in the plains, viz. NAINI TAL, the BHABAR, the TARAI, and KASHIPUR. The Bhābar is in charge of a *tahsildār* stationed at Haldwānī, and the Tarai is under a *tahsildār* at Kichhā. The chief towns are the municipalities of NAINI TAL, the District headquarters, and

KASHIPUR, and the notified area of Haldwānī. The following table shows the chief statistics of population in 1901 :—

Taluk.	Area in square miles.	Number of—		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Nainī Tāl ...	433	1	451	43,738	101	— 5.5	3,735
Bhābar ...	1,270	4	511	93,445	73	— 7.2	5,138
Kāshipur ...	180	2	147	55,632	294	— 31.5	2,313
Tarai ...	776	...	404	118,422	153	— 16.0	1,741
District Total ...	2,677	7	1,513	311,237	116	— 12.7	12,927

About 75 per cent. of the population are Hindus and more than 24 per cent. Musalmāns; but the latter are chiefly found in the Tarai and Kāshipur. More than 67 per cent. of the total speak Western Hindī, 31 per cent. Central Pahārī, and one per cent. Nepālī or Gorkhālī.

In the hills and Bhābar the bulk of the population is divided into three main castes, the Brāhmins, Rājputs, and Doms. Each of the two former includes the Khas tribes classed respectively as Brāhmins and Rājputs. The Doms are the labourers and artisans, while the Brāhmins and Rājputs are agriculturists. In the Tarai and Kāshipur are found the ordinary castes of the adjoining Districts with a few peculiar to this tract. Rājputs number 51,300; Brāhmins, 36,000; Doms, 33,000; and Chamāras, 23,000. The Thārus and Boksās are believed to be of Mongolian origin and number 16,000 and 4,000 respectively. They are the only people who can retain their health in the worst parts of the Tarai. In the hills are found three small, but peculiar, castes; the Bhotiās who come from the border of Tibet; the Naiks, who devote their daughters to prostitution, and the Sauns, who are miners. Among Musalmāns the chief tribes are the Shaikhs, 19,000 and Julāhās, 13,000. The Rains, 4,000 and the

Castes and
occupa-
tions.

Turks, 4,000, are only found in the submontane tract. Agriculture supports about 67 per cent. of the total population, and general labour 9 per cent.

Christian Missions. Out of 859 native Christians in 1901 Methodists included 201, Roman Catholics 193, Presbyterians 59, and the Anglican communion 38. The American Methodist Episcopal Mission commenced work at Naini Tal in 1857.

General agricultural conditions. In the hill tracts the method of cultivation differs according to the situation of land. Plots lying deep in the valleys near the beds of rivers are irrigated by small channels, and produce a constant succession of wheat and rice. On the hillsides land is terraced, and *maruā*, or some variety of bean or a pulse, takes the place of rice in alternate years, while wheat is not grown continuously unless manure is available. In poorer land barley is grown instead of wheat. Potatoes are largely cultivated on the natural slope of hillsides from which oak forest has been cut. Cultivation in the hills suffers from the fact that a large proportion of the population migrates to the Bhābar in the winter. Agricultural conditions in the Bhābar depend almost entirely on the possibility of canal irrigation, and the cultivated land is situated near the mouth of a valley in the hills. Rice is grown in the autumn, and in the spring rape or mustard and wheat are the chief crops. Further south in the Tarai and in Kāshipur cultivation resembles that of the plains generally. In the northern portion the soil is light; but when it becomes exhausted, cultivation shifts. Lower down clay is found, which is continuously cultivated. Rice is here the chief crop; but in dry seasons other crops are sown, and the spring harvest becomes more important.

Chief agricultural statistics and principal crops. The tenures in the hill tracts have been described in the account of the KUMAUN DIVISION. In the Bhābar the majority of villages are managed as Government estates, the tenants being tenants-at-will and the village managed and the rents collected by a headman. There are also a few villages held under *samīndārī* tenures peculiar to the tract and, in these, tenants with the *kharikari* occupancy right of the hills are found. Most of the Tarai is also a Government estate. The cultivators, though mere tenants-at-will, are never dispossessed as long as they pay their rents. In Kāshipur the tenures of the plains

predominate; but a few villages are also managed as Government estates. The chief agricultural statistics for 1903-04 are shown below, areas being in square miles :—

Tahsil.			Total.	Cultivated.	Irrigated.	Culturable waste.
Naini Tal ...	...	...	433	54	13	19*
Bhābar ...	...	...	1,279	50	88	32*
Kāshipur ...	...	...	160	69	10	76
Tarai ...	...	...	776	195	38	431
Total	...	...	2,677	407	149	557

*In demarcated area only.

No crop returns are prepared for the Naini Tal *tahsil*, in which wheat, barley, rice, and *maruā* are the main food-crops, while a little tea and spices are also grown. Rice and wheat are the most important crops in the Tarai and Kāshipur, covering 101 and 87 square miles respectively, or 38 and 33 per cent. of the net area cropped. *Gram*, maize, and barley are grown in smaller areas. Oilseeds covered 24 square miles, and a little sugarcane and cotton are produced. There are 5 tea estates in the lower hills, but little tea is now produced, and fruit-growing is becoming a more important industry.

The cultivated area in the hill tracts increased by nearly 50 per cent. between 1872 and 1902; but agricultural methods have not improved to any marked extent, except in the extension of irrigation and of potato cultivation. The cultivated area in the Bhābar has also increased, but is entirely dependent on canals. In the Tarai and Kāshipur cultivation fluctuates considerably according to variations in the rainfall. Advances under the Land Improvement and Agriculturists' Loans Acts are small. They are not required in the hills or in the Bhābar.

The hill cattle are smaller than those of the plains; but neither breed is of good quality, though attempts have been made to introduce better strains. Enormous herds are brought from the Districts further south for pasture during the hot weather. Ponies of a small, but hardy, variety are bred in large

Improvements in agricultural practice.

Cattle, ponies, and sheep.

numbers along the foot of the hills for use as pack-animals. Goats and sheep are of the ordinary type, and considerable flocks are driven up in the winter from the plains to the Tarai. In the hills goats are seldom used to supply milk, but are kept for their flesh and manure.

Irriga-
tion.

The total area irrigated in 1903-04 was 149 square miles; 4 or 5 square miles are irrigated in the hills from channels drawn from the rivers and carried along hillsides, besides casual irrigation from springs and water near the surface. The bulk of the irrigation in the rest of the District is from small canals. These are drawn in the Bhābar from the rivers which flow down from hills, supplemented by lakes, which have been embanked to hold up more water. Owing to the porous nature of the soil and gravel which make up that area, there is a great loss of water, and the channels are gradually being lined with masonry. More than 200 miles of canal have been built, commanding a total area of 110 square miles. In the Tarai the small streams which rise as springs near the boundary of the Bhābar were formerly dammed by the people to supply irrigation. Immense swamps were formed and the tract became extremely unhealthy. Canals and drainage systems have, however, been undertaken. The canals are chiefly taken from the small streams and are minor works. In the east the villagers themselves make the dams and channels. The more important canals are maintained by Engineers, and are divided between the charges of the Engineer attached to the Tarai and Bhābar and of the Engineer of the Rohilkhand Canals.

Forests.

The forests of the District cover an area of about 1,510 square miles, of which about 900 are reserved and 340 consist of protected forests. They are situated partly in the submontane tract and partly in the hills. In the former tract the most valuable product is *sāl* (*Shorea robusta*); while *shisham* (*Dalbergia sissoo*), *haldu* (*Adina cordifolia*), and *khair* (*Acacia catechu*) are also found. *Sāl* extends up to about 3,000 feet, and is then replaced by various pines, especially *chīr* (*Pinus longifolia*), and ultimately by various kinds of oak (*Quercus semicarpifolia*, *incana*, and *dilatata*). The whole of the waste land in the hill tracts has now been declared protected forest to prevent further denudation, which had begun to threaten the

cultivation in the river beds. Most of the reserved forest area is included in the Naini Tāl, Kumaun, and Garhwāl forest divisions, and accounts are not kept separately for the District. The receipts are, however, large, and amount to 2 or 3 lakhs annually.

The mineral products are various, but have not proved of great value. Building stone is abundant, and lime is manufactured at several places. Iron was worked for a time both by Government and by private enterprise; but none is extracted now. Copper is also to be found, but is not worked. A little gold is obtained by washing the sands of the Dhelā and Phikū rivers, and other minor products are alum, gypsum, and sulphur.

Cotton cloth of good quality is largely woven in the south-west of the District, especially at Jaspur, and is dyed or printed locally for export to the hills. Elsewhere only the coarsest material is produced for local use. In the hill tracts a coarse variety of cloth, sackings, and ropes are woven from goats' hair. There are no other industries of importance. A brewery is situated close to Naini Tāl, which employs about 50 hands.

The District as a whole imports piece-goods, salt, and metals, while the chief exports are agricultural and forest produce. The hill tracts supply potatoes, chillies, ginger, and forest produce, and import grain from the Bhābar. The surplus products of the latter tract consists of grain, forest produce, and rapeseed. There is little trade to or from the Terai. A considerable through traffic between the interior of the Himālayas and the plains is of some importance to this District. Naini Tāl is the chief mart in the hills, while Haldwānī, Rāmnapur, Chorgalliā, and Kālādhūngī are situated in the Bhābar, and Jaspur and Kāshīpur are the principal markets in the plains.

The only railway is the Rohilkhand-Kumaun line from Bareilly to Kāthgodām at the foot of the hills below Naini Tāl; but extensions are contemplated from Lālkuā on this line to Kāshīpur to Rāmnapur, and from Morādābād on the Oudh and Rohilkhand Railway to Kāshīpur. There are 737 miles of road, of which 173 are metalled and are in charge of the Public Works department. The cost of the metalled roads is charged to Provincial funds, while 226 miles of unmetalled roads are maintained by the District board and 337 by the Terai and Bhābar estate funds. The chief road is that from Bareilly through Kāthgodām

Arts and
Manufactures.

Com-
merce.

Railways
and
Roads.

to Rānīkhet and Almorā, passing close to Nainī Tāl. Another road from Morādūbād through Kāshipur and Rāmnagar also leads to Rānīkhet.

Famines. Famines are practically unknown in this District, though high prices cause distress among the lowest classes. A serious failure of rain in the hills has never happened; and although deficiency injures the crops, the hill people depend largely on the Bhābar, in which irrigation is drawn from permanent sources. The Tarai suffers more from excessive rain than from drought, and the canal system protects every part of the low country except Kāshipur, where scarcity was experienced in 1896.

District sub-divisions and staff. The District is in charge of a Deputy Commissioner, who is ordinarily assisted by a member of the Indian Civil Service and by a Deputy Collector, who are stationed at Nainī Tāl. The Kāshipur *tahsil* forms a sub-division in charge of another Deputy Collector, who resides at Kāshipur except during the rains. A special superintendent manages the Tarai and Bhābar Government estates. A *tahsildār* is stationed at the headquarters of each *tahsil* except Nainī Tāl and Kāshipur, where there is a *naib tahsildār*. In addition to the ordinary District staff there is an Engineer in charge of canals and other public works in the estates, and the forests are divided between several forest divisions.

Civil Justice and Crime. Nainī Tāl is administered as a non-regulation tract, and the same officers exercise civil, revenue, and criminal jurisdiction. In civil matters the Commissioner of Kumaun sits as a High Court, while the Deputy Commissioner has powers of a District Judge, and his assistants and the *tahsildars* have civil powers for the trial of suits. The Commissioner is also Sessions Judge in subordination to the High Court at Allahābād. There is little crime in the hill tracts; but dacoities are fairly common in the Tarai and Bhābar, and this is the most serious form of crime. The proximity of the Rāmpur State favours the escape of criminals.

Land Revenue administration. A District of Nainī Tāl was first formed in 1891. Before that date the hill tracts and the Bhābar had been included in what was then the Kumaun, but is now called the ALMORA DISTRICT. The *parganas* included in Kāshipur and the Tarai were for long administered as parts of the adjoining Districts

of Morādābād and Bareilly. About 1861, after many changes a Tarai District was formed, to which in 1870 Kāshipur was added. The tract was at the same time placed under the Commissioner of Kumaun.

The first settlement of the hill tracts and Bhābar in 1815 was based on the demands of the Gurkhas and amounted to Rs. 17,000, the demand being levied by *parganas* or *pattis* (a sub-division of the *pargana*), and not by villages, and being collected through headmen. Short-term settlements were made at various dates, in which the revenue fixed for each *patti* was distributed over villages by the *zamīndārs* themselves. The first regular settlement was carried out between 1842 and 1846, and this was for the first time preceded by a partial survey where boundary disputes had occurred, and by the preparation of a record-of-rights. The revenue so fixed amounted to Rs. 36,000. A revision was carried out between 1863 and 1873; but the management of the Bhābar had by this time been separated from that of the hills. In the latter a more detailed survey was made. Settlement operations in the hills differ from those in the plains as competition rents are non-existent. The valuation is thus made by classifying soil, and estimating the produce of each class. The revenue fixed in the hill *pattis* alone amounted to Rs. 34,900, and this was raised to Rs. 50,300 at the latest assessment made between 1900 and 1902. The latter figure includes the rent of potato clearings, which are treated as a Government estate, and also revenue which has been assigned, the actual sum payable to Government being Rs. 43,100. There was for many years very little advance in the cultivation of the Bhābar, the revenue from which in 1843 was only Rs. 12,700. In 1850 it was placed in charge of Captain (afterwards Sir Henry) Ramsay, who was empowered to spend any surplus above the fixed revenue on improving the estate. The receipts at once increased by leaps and bounds as irrigation was provided and other improvements were made. Revenue continued to be assessed as in the hills in the old settled villages, while the new cultivation was treated as a Government estate. The first revision in 1864 yielded Rs. 60,000, of which Rs. 4,000 represented rent, and the total receipts rose to a lakh in 1869, 1·4 lakhs in 1879, nearly 2 lakhs in 1889, and 2·4 lakhs in 1903. Of the

latter figure Rs. 57,000 are assessed as revenue and Rs. 1,85,000 as rent. The greater part of the Tarai is held as a Government estate, and its fiscal history is extremely complicated as portions of it were for long administered as part of the adjacent Districts. The land revenue in 1885 amounted to Rs. 70,000 and the rental demand to about 2 lakhs. The latter item was revised in 1895 when rents were equalized, and the rental demand is now about 2·5 lakhs. Kashipur was settled as part of the Morādābād District, and at the revisions of 1843 and 1879 the revenue demand was about a lakh. A revision is now (1901) being made. The total demand for revenue and rent in the District is thus about 7 lakhs. The gross revenues are included in those of the KUMAUN DIVISION.

Local self-
Govern-
ment

There are two municipalities, KASHIPUR and NAINI TAL, and a notified area, HALDWANI, and 4 towns are administered under Act XX of 1856. Beyond the limits of these, local affairs are managed by the District board; but a considerable expenditure on roads, education, and hospitals is also incurred in the Government estates from Provincial funds. The District board had an income of Rs. 37,000 and an expenditure of Rs. 82,000 in 1903-04, the latter including Rs. 42,000 spent on roads and buildings.

Police and
Jails.

The Superintendent of Police and a single circle inspector are in charge of the whole of the Kumaun Division. In the hill tract of this District there are no regular police except in the town of Nainī Tal and at 3 outposts, the duties of the police being discharged by the *patwāris*, who have a higher position than in the plains. There is one reserve inspector, and the force includes 37 subordinate officers and 135 constables, besides 83 municipal and town police, and 152 rural and road police. The number of police-stations is 11. A jail has recently been built at Haldwani.

Educa-
tion.

The population of this District is above the average as regards literacy, and 4·2 per cent. (7·1 males and ·5 females) could read and write in 1901. The Musalmāns are especially backward, and only 2 per cent. of these were literate. In 1880-81 there were only 16 public schools with 427 pupils; but after the formation of the new District education was rapidly pushed on, and by 1900-01, 60 schools contained 1,326 pupils. In

1903-04 there were 93 public schools with 2,277 pupils, including 82 girls, besides 13 private schools with 170 pupils. Only 200 pupils in public and private schools were reading in advanced classes. Two schools were managed by Government and 77 by the District and municipal boards. The expenditure of Rs. 12,000 was met almost entirely by local and Provincial funds. These figures do not include the 9 European schools in NAINI TAL, which contain about 350 boys and 250 girls.

There are 14 hospitals and dispensaries in the District, Hospitals and dispensaries, having accommodation for 104 in-patients. In 1903, 78,000 cases were treated, of which 1,040 were those of in-patients, and 1,687 operations were performed. The expenditure in the same year amounted to Rs. 49,000.

In 1903-04, 11,000 persons were successfully vaccinated, Vaccination, giving an average of 37 per 1,000. (J. E. Goudgo, *Settlement Report, Almorā and Hill Patts of Nainī Tāl*, 1903; H. R. Nevill, *District Gazetteer*, 1904.)

Nainī Tāl Tahsil.—A part of the Nainī Tāl District, United Provinces, comprising the *parganas* of Dhyānirao, Chhakhātā Pahār, Pahār Kotā, Dhaniyākot, Rāmgarh, Kutaulī, and Mahrūrī, and lying between 29° 9' and 29° 37' N. and 79° 9' and 79° 56' E., with an area of 433 square miles. Population fell from 46,139 in 1891 to 43,738 in 1901. There are 451 villages, but only one town, NAINI TAL, which is the District headquarters in the hot weather; population, 7,609 in winter and in summer 15,164. The demand for land revenue in 1903-04 was Rs. 33,000 and for cesses Rs. 5,000. The density of population, 101 to the square mile, is higher than the density in Himālayan tracts as a rule. This tract lies entirely in the hills, and is in the charge of a *peshkār* or *naib tahsildār*. In 1903-04, 54 square miles were cultivated, of which 13 were irrigated either by small channels from rivers or by canals.

Bhābar.—A portion of the Nainī Tāl District, United Provinces, comprising the *parganas* of Chhakhātā Bhābar, Chaubhainsī Bhābar, Kālādhūngī, Chilkiyā, and Kotā Bhābar, and lying between 28° 51' and 29° 35' N. and 78° 57' and 80° 13' E., with an area of 1,279 square miles. Population fell from 100,178 in 1891 to 93,445 in 1901. There are 511 villages and 4 towns, the largest being HALDWANI, the cold weather

headquarters of the District, population 6,624. The demand for land revenue in 1903-04 was Rs. 13,000 and no cesses are levied. The density of population, 73 to the square mile, is the lowest in the District. This tract consists of a long narrow strip of land immediately below the hills, and a great part of it is covered with thick forest or dense jungle. The hill torrents sink into the porous mass of gravel, boulders, and earth which make up the Bhābar, and except during the rains water can hardly be obtained. Cultivation is thus entirely dependent on canal irrigation, by means of which magnificent crops of oilseeds are raised. The population is largely migratory, and moves up to the hills in the hot weather, returning in November. The greater part of the cultivated land is held directly from the state as landlord. Including rents the gross income from the land is about 1·4 lakhs. In 1903-04, 89 square miles were cultivated, almost the whole area being irrigated.

Kāshipur Tahsīl.—South-western *tahsīl* and sub-division of Nainī Tāl District, United Provinces, conterminous with *pargana* of same name, and lying between 29° 7' and 29° 22' N. and 79° 4' and 79° 43' E., with an area of 189 square miles. Population fell from 73,168 in 1891 to 55,632 in 1901, the rate of decrease being the largest in the District. There are 147 villages and two towns, KASHIPUR, the *tahsīl* headquarters, population, 12,023 and JASPUR (6,480). The demand for land revenue in 1903-04 was Rs. 90,000 and for cesses Rs. 11,000. The density of population, 294 to the square mile, is the highest in the District, and this *tahsīl* resembles the adjoining parts of Rohilkhand. It lies entirely in the plains, and is not so damp as the Tarai. In 1903-04, 69 square miles were cultivated, of which 10 were irrigated, almost entirely by canals.

Tarai.—Southern portion of Nainī Tāl District, United Provinces, comprising the *parganas* of Bāzpur, Gadarpur, Kichhā, Kilpurī, Nānakmatā, and Bilherī, and lying between 28° 43' and 29° 26' N. and 78° 53' and 80° 5' E., with an area of 776 square miles. Population fell from 137,396 in 1891 to 118,422 in 1901. There are 404 villages, but no town. The demand for land revenue in 1903-04 was Rs. 70,000 and for cesses Rs. 1,700. The density of population, 153 to the square mile, is lower than in the adjacent tracts to the south, and the Tarai is a damp malarious

tract which can only be safely inhabited for certain parts of the year, except by the Thārus and Boksūs. The drainage of the outer Himālayas, after sinking to an unknown depth in the boulder beds of the Bhābar, reappears here in a line of springs which gradually form into small streams, from which canals are drawn. Rice is the great staple of cultivation. Out of 195 square miles cultivated in 1903-04, 38 were irrigated, chiefly by canals. Most of the Tarai is managed as a Government estate, and the rents amount to about 2·5 lakhs in addition to the revenue stated above.

Gagar.—A range of mountains in the Nainī Tāl and Almorā Districts, United Provinces, forming a portion of the outer Himālayan range; situated between $29^{\circ} 14'$ and $29^{\circ} 30'$ N. and between $79^{\circ} 7'$ and $79^{\circ} 37'$ E. This range is also known as Gārgachal, from the legend that the *rishi*, Gārg, once dwelt on it. The chain runs along the southern border of the Districts, parallel to the plains, from the Kosi river to the Kālī, and presents a line of higher elevation than any ranges between it and the main ridge of the central Himālayas. The highest peak is Badhāntola, 8,612 feet, while the steep cliff of Chinā, which towers above the lake and town of Nainī Tāl, reaches a height of 8,568 feet. The average elevation is from 6,000 to 8,000 feet. Forests of cypress, *tūn* (*Cedrela toona*), fir, and other timber trees clothe the steep hillsides except where they have been cleared for potato cultivation.

Haldwānī.—Notified area and headquarters of the Bhābar *tahsīl* tract, District Nainī Tāl, United Provinces; situated in $29^{\circ} 3'$ N. and $79^{\circ} 32'$ E., on the road from Bareilly to Nainī Tāl and on the Rohilkhand and Kumaun Railway. Population, 6,624 (1901). The name is derived from the *haldu* (*Adina cordifolia*) trees which abound in the neighbourhood. Haldwānī was founded in 1834 as a mart for the hill people who visit the Bhābar in the cold weather. It has now become the winter headquarters of the officers of the Kumaun Division and Nainī Tāl District. Besides the offices it contains a small jail, and a dispensary, and is the headquarters of a *tahsildār*. Between 1897 and 1904 Haldwānī was administered as a municipality, the average income and expenditure in 4 years ending 1901 being Rs. 9,700 and Rs. 9,100 respectively. In 1903-04 the income was Rs. 14,000,

the chief item being rents and fees, Rs. 5,500, and the expenditure was Rs. 13,000. Haldwānī is the principal mart in the Bhābar, and exports oilseeds, forest produce, and the products of the hills. There are 2 schools with 77 pupils.

Jaspur.—Town in *tahsil* Kāshipur, District Nainī Tāl, United Provinces, situated in 29° 17' N. and 78° 50' E. Population, 6,480 (1901). The town is of modern growth and contains few brick houses. It is administered under Act XX of 1856, with an annual income and expenditure of about Rs. 2,000. There is a considerable manufacture of cotton cloth by Julāhās, who reside here, and also some trade in sugar and timber.

Kāshipur Town.—Municipality and headquarters of the Kāshipur sub-division, District Nainī Tāl, United Provinces, situated in 29° 13' N. and 78° 51' E. It lies on a road from Morādābād, and a railway from the same place has been projected. Population 12,023 (1901). Near the town are situated extensive ruins of forts and temples which were identified by General Cunningham with the capital of the kingdom of Govisāna, visited by the Chinese pilgrim in the 7th century. There are several tanks in the neighbourhood, one of which is called after Drona, the tutor of the Pāndava brothers. A brick inscribed in characters of the 3rd or 4th century A.D. was recently found here. The modern town is named after its founder, Kāshī Nāth, the governor of the *pargana*, in the 16th or 17th century. In the latter half of the 18th century Nand Rām, the governor, became practically independent of the Chand Rājā of Almorā; and his nephew, Shib Lāl, was in possession at the date of the cession to the British in 1801. Kāshipur contains a fair-sized bazar with brick-built houses; but outside of this the houses are chiefly of mud. The largest building is the residence of the Rājā, who is descended from an illegitimate branch of the Chand Rājās of Almorā. Besides the usual courts there is a dispensary. Kāshipur has been a municipality since 1872. In the 10 years ending 1901, the average income and expenditure were Rs. 11,000. In 1903-04 the income was Rs. 14,000, chiefly from tolls, Rs. 5,000, and a tax on circumstances and property, Rs. 3,000, and the expenditure was Rs. 12,000. There is a flourishing trade in cloth, metal vessels, and hill produce. The municipality supports a school attended by 75 pupils.

Kāthgodām (Timber depôt).—Village in the Bhābar, District Nainī Tāl, United Provinces, situated in $29^{\circ} 10' N.$ and $79^{\circ} 33' E.$, at the terminus of the Rohilkhand and Kumaun Railway. Population 375 (1901). The place has only become of importance since the railway was extended from Haldwānī, the former terminus. It is now the starting-point for the ascent to the hill stations of Nainī Tāl, Rānikhet, and Almorā. Kāthgodām is administered together with Rānibāgh, 3 miles away on the tonga road, under Act XX of 1856, the annual income and expenditure being about Rs. 800. Rānibāgh has a population of 644, and is situated at the junction of the tonga road with bridle-paths to various places in the hills. It is an important stage in the trade route to the interior.

Mukteswar (*Motesar*).—Village in the Himālayas, Nainī Tāl District, United Provinces, situated in $29^{\circ} 28' N.$ and $79^{\circ} 39' E.$, at an elevation of 7,500 to 7,700 feet. Up to 1893 the village was only distinguished by its shrines and a small temple. It was then selected as the site of a laboratory for the manufacture of serum to protect cattle against rinderpest. The laboratory was completed in 1898, but was burnt down in 1899 and rebuilt by 1901. It stands in an enclosure of about 3,000 acres, part of which is occupied by oak and pine forest; a fruit garden started many years ago has also been included, and a meteorological observatory is maintained. In addition to the supply of serum for use in epidemics of rinderpest, a serum for anthrax, mallein, turberoulin, and tetanus anti-toxin are prepared. Researches are being conducted in the etiology of diseases affecting animals, such as rinderpest, anthrax, surra, lymphangitis epizootica, and glanders, and District board veterinary assistants from the United Provinces and the Punjab are instructed in the use of various kinds of serum. The annual expenditure is about Rs. 50,000.

Nainī Tāl Town.—Municipality, cantonment, and headquarters of the Nainī Tāl District, United Provinces, situated in $29^{\circ} 24' N.$ and $79^{\circ} 28' E.$, in a valley of the GAGAR range of the outer Himālayas. Population 15,164 in September 1900 and 7,609 in March 1901, including that of the small cantonment. Up to 1839 the place was only resorted to by the herdsmen of surrounding villages, and though it was mentioned by the

Commissioner in official reports, he does not appear to have visited it. It was then discovered by a European, and from 1842 it increased rapidly in size and prosperity. At the time of the Mutiny, Nainī Tāl was a well-known sanitarium and formed a refuge for the fugitives from the neighbouring Districts in Rohilkhand. Soon afterwards it became the summer headquarters of Government, and it is now also the headquarters of the Commissioner of Kumaun and of a Conservator of Forests. In September 1880, after three days' continuous rain, a landslip occurred, which caused the death of 43 Europeans and 108 natives, besides damage to property amounting to about 2 lakhs. Since this disastrous occurrence a complete system of drainage has been carried out at great expense. The valley contains a pear-shaped lake, a little more than two miles in circumference, and reaching to a depth of 93 feet. On the north and south rise steep hillsides clothed by rich forest trees, among which oaks predominate. On the western bank is situated a considerable area of more gently sloping land, from which a level recreation-ground has been excavated. The upper bazar stands above this, and the houses occupied by the European residents are scattered about on the sides of the valley. East of the lake the lower bazar is built on the outer edge of the range. The surface of the water is 6,350 feet above sea-level and the highest peaks are Chinā (8,568) on the north, Deopāthū (7,987) on the west, and Ayārpāthā (7,461) on the south. The residence of the Lieutenant-Governor was completed in 1900, and is a handsome building standing in spacious grounds. The principal public buildings include the Government Secretariat, the District offices, the Ramsay Hospital for Europeans, and male and female dispensaries for natives. There is also an important station of the American Methodist Mission. Nainī Tāl has been a municipality since 1845. In the 10 years ending 1901 the average income and expenditure were 1½ lakhs, including loan funds. The income in 1903-04 was 1·7 lakhs including house tax Rs. 34,000, tolls Rs. 93,000, water-rate Rs. 23,000, and conservancy tax Rs. 21,000, and the expenditure was 1·4 lakhs, including repayment of loans and interest Rs. 23,000, maintenance of water-supply and drainage Rs. 34,000, and conservancy Rs. 26,000. Drinking water is derived from springs and is pumped up to reservoirs at the top

of hills and distributed by gravitation. More than 4 lakhs have been spent on water-supply and drainage, and the introduction of a scheme of electric light is contemplated. The trade of the town is chiefly comprised in the supply of the wants of the summer visitors; but there is some through traffic with the hills. Three schools for natives contain 220 pupils, and 5 schools for European boys have 350 pupils and 4 for girls 200.

Almorā District.—North-eastern District in the Kumaun Division, United Provinces, lying between $29^{\circ} 26'$ and $30^{\circ} 49'$ N. and between $79^{\circ} 2'$ and $80^{\circ} 30'$ E., with an area of 5,419 square miles. It is bounded on the north by Tibet; on the east by the Kālī river, which divides it from Nepāl; on the south by the Nainī Tāl District; and on the north-west by Garhwāl District. With the exception of a small area, the whole of this vast tract lies within the Himālayas, stretching from the outer rampart which rises abruptly from the plains, across a maze of ranges to the great central chain of snowy peaks and beyond this to the borders of the Tibetan plateau. The south-east corner extends into the Bhābar, a small tract at the foot of the hills which is largely covered with forest, and resembles the Bīran of Nainī Tāl District. For 40 or 50 miles north of the outer ranges the hills form ridges with an average height of 4,000 to 5,000 feet, sometimes rising to 7,000 or 8,000 feet. The ridges are distinct, though their windings and minor spurs give the beholder the impression of an inextricable tangle, and each ridge runs with a general direction from south-east to north-west and ends in a snowy peak in the central chain. North of a line from Kapkot to Askot the general elevation increases, glaciers appear, and finally the limit of perpetual snow is reached. On the western boundary, and partly situated in Garhwāl, is the Trisūl Mountain, named from its triple peaks having a fanciful resemblance to a trident, and ranging from 22,300 to 23,400 feet. To the north-east of Trisūl is Nandā Devī, with an elevation of 25,661 feet, the highest mountain in the British Empire; and Nandā Kot, the couch of the great goddess Nandā, with a height of 22,538 feet. East of these is a magnificent mass of snow-clad mountains called Pāñch Chūlhi, the two highest peaks reaching an elevation of 22,673 and 21,114 feet respectively. Another ridge with a mean elevation of 18,000 feet lies along the Tibetan

frontier and forms the water parting between the drainage system of the Indus and Sutlej on the north and the Kālī on the south. Most of the drainage of the Almora District is carried off by the Kālī or Sārdā. Its tributaries flow in the valleys between the lower ranges of hills; the Dhauligangā, and the Gorīgāngā rising in glaciers, the Sarjū and Rāmgāngā (East) rising just below the snow line, and the Gomati, Lahuvati, and Ladhīyā in the outer hills. A long watershed runs down the western border; but in the south it is pierced by the Rāmgāngā (West) and by the Kosi, which are the principal rivers not forming affluents of the Kālī. Apart from small areas in the river beds, and a few elevated plateaux there are no areas of even tolerably level land above a height of 3,000 feet.

Botany.

The flora of the district presents a striking variety, ranging from the submontane tropical growths of the Bhābar, through the temperate zone where cedars, oaks, pines, and rhododendra are found, and the higher ranges where thickets of willow and birch appear, to the lofty hillsides forming open pasture land, which is richly adorned in summer with the brilliantly-coloured alpine species of flowers.

Geology.

The southern boundary of Almora begins among the probably very ancient, but unfossiliferous, slates, schistose slates, quartz-schists, and occasional massive limestones, sometimes marmorised, of the lower Himālayas. These become invaded by enormous masses of gneissose granite in the central region of the main chain of snowy peaks, when their metamorphism is proportionately greater; but this area has only been superficially examined. On the northern side of the central axis the great series of sedimentary marine deposits, extending from lower silurian to cretaceous, make this elevated tract exceptionally rich from a geological point of view, and unsurpassed in any other part of India.

Fauna.

The District is rich in animal life. Elephants, tigers, the sloth bear, black and brown bears, leopards, wild dogs, wild pig, various species of deer and chamois, and the *yāk* or Himālyan ox are found in different parts. The rivers abound in fish, including the mahseer, and many varieties of birds are found. In the Bhābar and lower hills immense pythons are sometimes seen.

The Bhābar is sub-tropical in climate, but the southern portion of the hill tract is more temperate, though the heat in the deep valleys is occasionally intense. Climate and temperature.

The outer ranges receive a heavy precipitation during the rains, and the annual fall there is about 80 inches. This rapidly decreases to about 40 inches immediately north of the outer barrier. No records are kept of the fall of rain and snow in the higher country near the snow line; but it is much greater than in the central part of the District.

Tradition connects many places in the hills with episodes in the religious books of the Hindus, especially the Mahābhārata. The earliest historical account of the hill country is that given by the Chinese pilgrim in the 7th century, who describes a kingdom, named Brahmapura, situated in the hills and inhabited by a hardy and uncultivated people. It was bounded by the snowy mountains, near which resided a people who were ruled by a woman. The earliest dynasty known is that of the Katyūris, eventually supplanted by the Chand Rājās, the former reigning at Baijnāth in the Katyūr valley, at which place and also at Dwārāhāt architectural remains are still extant. The Chand Rājās, of whom the first, Som Chand, is said to have come from Jirust, near Allahābād, probably in the 10th century of our era, had their established seat of government at Champāwat in Kāli Kumaun.

In 1563 A.D., the Chands having obtained full authority over all the petty chiefs, including the last descendant of the Katyūris, the capital was transferred to Almorā by Rājā Kalyān Chand. His son, Rudra Chand, was a contemporary of Akbar, and made his obeisance to that emperor at Lahore in 1587. The Muhammadan rulers never obtained a fixed footing in the hills; but in 1744 Ali Muhammad Khān sent a force to invade Kumaun. The resistance of the Chand Rājās was weak and ineffectual. The Rohillas captured and plundered Almorā. Though their stay in Kumaun was short, its results to the Province are bitterly remembered; and its mischievous, though zealously religious, character is still attested by the mutilated sculptures of some of the Kumaun temples. The Rohillas remained in the hills for seven months, when, disgusted with the climate and the hardships that they were forced to suffer, they

accepted a bribe of three lakhs of rupees and returned to the plains. But Ali Muhammad Khān was not satisfied with the conduct of his lieutenants; and three months after their retreat, at the commencement of 1745, the Rohillas returned. They were defeated at the very entrance of the hills near Bārakherī, and made no further attempt on Kumaun. These were the first and last Muhammadan invasions of the hills. The Delhi emperors never exercised any direct authority in Kumaun, although it was necessary for the Rājā to admit their nominal supremacy for the sake of his possessions in the plains. These events were followed by disturbances and revolutions in Kumaun itself; and within the next thirty years the hill Rājās lost all the country which they had held in the plains, except the tract known as the BHABAR.

In the middle of the 18th century, the Gurkha tribe, under their chief, Prithwī Nārāyan, had made themselves masters of the most important part of the present kingdom of Nepāl. His successors determined, in 1790, to attack Kumaun. The Gurkha forces crossed the Kālī, and advanced upon Almora through Gangoli and Kālī Kumaun. The titular Rājā of Kumaun fled to the plains, and the whole of his territory was annexed to the other conquests of the Gurkhas. The Nepalese rule lasted twenty-four years and was of a cruel and oppressive character. In the early part of the present century the Gurkhas had been making numerous raids in the British possessions lying at the foot of the Himālayas. All remonstrance was unavailing; and in December, 1814, it was finally resolved to wrest Kumaun from the Gurkhas and annex it to the British possessions, as no legitimate claimant on the part of the Chands was then in existence. Harak Deo Joshī, the minister of the last legitimate Rājā of Kumaun, warmly espoused the British side. At the end of January, 1815, everything was ready for the attack on Kumaun. The whole force consisted of 4,500 men with two 6-pounder guns.

The first successful event on the British side during this war was the capture of Almora by Colonel Nicholls on 26th April, 1815. On the same day Chandra Bahādur Sāh, one of the principal Gurkha chiefs, sent a flag of truce to Colonel Nicholls, requesting a suspension of hostilities and offering to treat for the evacuation of Kumaun. Lieutenant-Colonel Gardner was deputed to hold a personal conference with Bam Sāh, the Nepalese

commander at Almorā; and on the following day the negotiation was brought to a close by the conclusion of a convention, under which the Gurkhas agreed to evacuate the province and all its fortified places. It was stipulated that they should be allowed to retire across the Kālī with their military stores and private property, the British providing the necessary supplies and carriage. As a pledge for the due fulfilment of the conditions, the fort of Lālmāndī (now fort Moira) was the same day surrendered to the British troops. Captain Hearsey, who had been taken and imprisoned at Almorā, was released at the same time. The Gurkhas were escorted across the Kālī by our troops, and the British took possession of Kumaun and Garhwāl.

Some interesting rock sculptures resembling the cup marks of European countries have been found in various places. An inscription of the Katyūri Rājās is preserved at BAGINSHWAR, but unfortunately is not dated, and BALNATH was once the capital of the same line. Champāwat was the residence of the Chand Rājās and contains some interesting ruins. A large number of copper-plate grants are preserved in the temples of the District, and many others are in possession of private individuals.

There are 4,025 villages, but only 2 towns. Population is increasing steadily: 1872, 351,579; 1881, 360,967; 1891, 416,868; 1901, 465,893. A considerable annual migration takes place during the winter from the villages situated near the snows to more temperate parts, and from the outer hills to the Bhābar, the movement being reversed in the summer. There are two *tehsils*, ALMORA and CHAMPAWAT, each named from the place at its headquarters. The chief towns are the municipality of ALMORA, and the cantonment of RANIKHET. The following table gives the main statistics of population in 1901:—

Tahsil.	Area in square miles.	Number of—		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Champāwat ...	2,255	...	1,462	122,023	54	+ 19.7	6,075
Almorā ...	3,161	2	3,466	313,870	109	+ 7.3	19,753
Total ...	5,416	2	4,928	465,893	86	+ 11.7	26,428

Hindus number nearly 99 per cent. of the total population. There are also 4,051 Musalmāns, 1,427 Christians, and 217 Buddhists. The density of population is very low owing to the desolate nature of a large area in the District. Central Pahari is the language ordinarily spoken, the particular dialect being called Kumaunī; but 8,000 persons speak Bhotiā, and a few jungle tribes are found with a peculiar language of their own.

Castes
and occu-
pations.

About 97 per cent. of the entire Hindu population are included in the three castes Rājput or Kshattrī, Brāhman, and Dom, who number 224,000, 112,000, and 99,000 respectively. The Kshattrīs and Brāhmanas are divided into two main classes according as they claim to have come from the plains or belong to the great Khas tribe which is identified by some writers with the people of a similar name mentioned by the classical writers. The Doms are labourers and artisans, and with the extension of trade and road building some of them are rapidly acquiring wealth. Among castes peculiar to the hills may be mentioned the Bhotiās, who are probably of Tibetan origin, and were formerly Buddhists, but are rapidly becoming Hinduised, 9,100, and the Gurkhas, 1,100. More than half of the Musalmāns are Shaikhs. Agriculture supports 92 per cent. of the population.

Christian
Missions.

There were 1,029 native Christians in the District in 1901, of whom 523 were Methodists and 163 Congregationalists. The London Mission has worked in Almora since 1850, and the American Methodist Mission since 1859.

General
agricul-
tural con-
ditions.

Cultivation depends largely on altitude and situation. The villages lying between a height of 3,000 and 5,000 feet and having access to forest land and grazing, and also to level land near the banks of a river, are best off. Two crops are taken, as a rule, in the autumn and spring; but in the snow valleys of the extreme north, wheat or *phāpar* (*Fagopyrum tataricum*) is sown in May and reaped in November. When cultivation extends above 6,000, it is usually inferior in style and produce. As the country consists almost entirely of ranges of hills the cultivated area is chiefly confined to terraces, except where the river valleys are sufficiently wide to allow cultivation.

Chief
agricul-
tural sta-
tistics and
principal
crops.

The tenures of the District are those found in the KUMAUN DIVISION. In 1903-04, 463 square miles or 9 per cent. of the total area were cultivated. No record is prepared of the area under

each crop. The staple food-crops are *maruā* and rice in the autumn and wheat and barley in the spring, *maruā* and wheat covering larger areas than rice and barley. Inferior millets, maize, and vegetables are also grown. Near the snows barley, *phāpar*, and *chua* (*Amarantus paniculatus*) are cultivated. The other products of the hills are turmeric, ginger, chillies, and potatoes. Tea plantations cover about 2,100 acres.

Between 1872 and 1902 the cultivated area increased by about 22 per cent. Cultivation in the hills entails continual improvement, as each year more stones are removed from the terraces, the retaining walls are strengthened and slopes are levelled. Improved communications have also led to a rise in prices. The wealthier men plant English fruit trees near their villages. Very few advances are made under the Acts, though in 1891-02 they reached the sum of Rs. 24,000. Improvements in agricultural practice.

The domestic cattle are small and usually red or black, resembling the Kerry cow in appearance. In the Bhotiā villages in the north the *yāk*, and hybrids between the *yāk* and ordinary kine, are used for carrying purposes. The ponies bred locally are not of good quality, though much used as pack-animals. Sheep and goats are bred in all parts and are kept chiefly for their manure and wool, but are also used as beasts of burden. Attempts have been made to improve the breed by crossing with Tibetan, English, and Australian stock, but with no perceptible results. Cattle, ponies, and sheep.

About 8 per cent. of the total cultivated area is irrigated. Water is supplied from long channels leading along the hillsides or by diverting water from the hill streams as required. Springs are also used. There are no wells, and water is never raised by artificial means. In the Bhābar, irrigation is supplied by a small canal from the Sārūdā. Irrigation.

The reserved forests cover more than 100 square miles, and a further area of 26 square miles is protected and under the charge of the Forest department. These forests are situated at the foot of the hills or in the outer ranges, and *sāl* (*Shorea robusta*) is the most valuable timber tree. Bamboos, turpentine, catechu, grass, and fuel are also extracted. Besides these tracts, however, the whole of the District, excluding the lands which were measured at settlement, has been declared District protected Forests.

forest, and this area, covering 4,832 square miles, is managed by the Deputy Commissioner.

Minerals. Copper has been worked to some considerable extent in this District, but hitherto only in native methods.* A concession has recently been granted to a European syndicate. Graphite of poor quality is found near Almorā, and there are also ores of iron, lead, and sulphur.

Arts and Manufactures. The District has few industries beyond agriculture. There are 23 tea plantations producing tea valued at about 1·7 lakhs annually. Blankets, woollen cloth, and shoes are made for local use at a few places. A brewery at Rānikhet employs about 30 hands.

**Com-
merce.** The trade of the District is increasing. Chillies, turmeric, ginger, tea, and forest produce are the chief exports, and grain, cloth, sugar, and salt are imported. Even more important is the through trade with Tibet. Borax, salt, and wool are the chief items received from Tibet, the value of wool passing through being nearly 2 lakhs annually. In recent years trade centres have moved. Almorā was formerly the chief emporium, and the merchants of that place had branch establishments at Bāgeshwar and Champāwat, where they met the Bhotiās, who brought down the products of Tibet. The Bhotiās, however, now travel down to the submontane markets of Rāmnapur, Haldwānī, and Tanakpur, and are even venturing to Calcutta and Bombay. An extensive cart traffic is carried on between Baijnāth, Almorā, Rānikhet, and Kāthgodām, and small bazars are springing up in many places.

Railways and Roads. There are at present no railways in the District, but the construction of a branch to the foot of the hills from Pilibhit on the Lucknow-Bareilly metre-gauge line is contemplated. The District has 1,146 miles of road, of which 64 miles are metalled. The Public Works department is in charge of 400 miles of road, and the cost of 138 miles is met from Provincial funds. In addition to the 64 miles of metalled road 108 miles of road are practicable for carts, but the other roads are only used by pack-animals. Avenues are maintained on 3 miles. The cart roads lead from Rānikhet to Rāmnapur and Kāthgodām, and from Almorā towards Karnaprayāg in the Garhwāl District and

* V. Ball, *Manual of the Geology of India*, part V, pages 271-8.

to the Rānikhet-Kāthgodām road. Trade with Tibet is largely carried on a road, now being greatly improved from Tanakpur to Askot, where tracks diverge, one leading by the ANTA DHURA pass to Gartok, and another to the Neo Dhurā, Lampiyā Dhurā, and Lipū Lekh passes, the last being the easiest route to the sacred resorts of the Hindu, Kailās and Mānasarowar.

No universal famine has taken place in Almorā since the Famines. British gained possession of the District. The worst calamities of this kind were in 1838 and 1867. In 1896 there was slight scarcity in the west of the District. Floods occasionally damage the cultivation in river-beds, as in 1840 and 1880.

The Deputy Commissioner is usually assisted by a member of the Indian Civil Service and by two Deputy Collectors recruited in India. One of the latter is stationed at Pithorāgarh in the hot weather and at Tanakpur in the cold weather. There is a *tahsildār* at the headquarters of each *tahsil*. District sub-divisions and staff.

The District is non-regulation, and the members of the District staff exercise civil, revenue, and criminal powers. The Deputy Commissioner has powers as a District Judge subordinate to the Commissioner of Kumaun, who sits as a High Court for civil cases. The Cantonment Magistrate of Rānikhet has powers as a Judge of Small Causes Court. The Commissioner is also Sessions Judge. Crime is extremely light. Civil Justice and Crime.

At the time of the conquest in 1815 the whole of the present Kumaun Division excluding the TARAI and KASHIPUR divisions of what is now the Nainī Tāl District was constituted a single District under a Commissioner. From 1837 Garhwāl was placed in charge of an Assistant Commissioner, and in 1850 the Bhābar was made a separate charge. In 1891 the Nainī Tāl District was formed. Land Revenue administration.

When the District was acquired from the Gurkhas the land revenue demand was about Rs. 70,000, while in addition to this, various dues and taxes were levied, which brought in as much again. The latter were soon abolished, and for many years the assessments of revenue were based on problematical returns of area, and were varied arbitrarily according to the apparent prosperity of particular tracts. The early settlements were made for short periods, and as late as 1836 the Commissioner reported that the people were strongly opposed to a

settlement for 20 years. Between 1842 and 1846 the first regular settlement was carried out, and the revenue was raised from about a lakh to Rs. 1,07,000. This was the first partial attempt to measure and examine the capabilities of the land, and to form a record-of-rights.

The measurements, however, were few and in no way constituted a survey. Between 1863 and 1873 the settlement was revised, and this revision was preceded by a complete measurement of the terraced land. The survey was of a simple nature, being carried out by means of a hempen rope. Land was divided into 5 classes according as it was irrigated or dry or merely casual cultivation, and a scale of the relative value of the classes was fixed. An estimate of the yield of produce was then made, and applied to the area. Other considerations were also taken into account, such as the price of grain, the increase in population, general prosperity, and the like. The land revenue demand fixed amounted to Rs. 2,17,000. The latest revision was carried out between 1899 and 1902. Cultivation was valued at the rates fixed at the previous settlement, and all-round rates for enhancement were estimated for each *patti*,* on a general consideration of the rise in prosperity. The *patti* rates were reduced where necessary in the case of individual villages. In addition to the revenue of the hill tracts a small income is derived from the area cultivated in the Bhābar, which is managed directly as a Government estate, and yields about Rs. 5,000 annually in rents. The total land revenue collections in 1903-04 amounted to 2·3 lakhs; the gross receipts are included in those of the KUMAUN DIVISION.

Local
self-gov-
ernment.

There is only one municipality, ALMORA, and no towns are administered under Act XX of 1856. The District board had an income of one lakh in 1903-04, chiefly derived from Provincial grants. The expenditure was 1·1 lakhs, of which Rs. 61,000 were spent on roads and buildings.

Police
and Jails.

The Superintendent of Police for Kumaun, whose headquarters are at Nainī Tal, is in charge of the police of Almora. There are only 9 sub-inspectors and head-constables, 24 constables, 15 municipal, and 4 rural policemen in the whole District.

* A *patti* in the hill tracts is a sub-division of a *pargana*, not a fraction of a village as in the plains.

These are stationed in the towns of Almorā and Rānikhet, and police duties are generally supervised by the *patwāris*, who have approximately the status of sub-inspectors in the plains. The District jail contained an average of 59 prisoners daily in 1903.

Almorā takes a high place as regards the literacy of its inhabitants, of whom 5·7 per cent. (11 males and ·3 females) could read and write in 1901. The number of public institutions increased from 119 with 6,817 pupils in 1880-81 to 154 with 6,970 in 1900-01. In 1903-04 there were 183 such institutions with 8,109 pupils, of whom 503 were girls, besides one private school with 54 pupils. About 940 students were reading in classes beyond the primary stage. One school is managed by Government and 105 by the District board. Out of a total expenditure of Rs. 53,000, Rs. 34,000 were charged to local funds, and the balance was met from fees and subscriptions. A college is maintained at Almorā.

There were 9 hospitals and dispensaries in 1903, with accommodation for 81 in-patients. About 45,000 cases were treated during the year, including 984 of in-patients, and 1,957 operations were performed. The expenditure in the same year on the principal hospitals at Almorā and Rānikhet amounted to Rs. 7,600.

In 1903-04, 31,000 persons were successfully vaccinated, giving an average of 68 per 1,000 of population, which is very high. Vaccination is only compulsory in the municipality of Almorā and cantonments of Almorā and Rānikhet; but the inhabitants of the hills are more alive to its benefits than those of the plains.

(*Gazetteer of Himālayan Districts*, 3 volumes, 1882-86 [under revision]; J. E. Goudge, *Settlement Report*, 1903.)

Champāwat.—Eastern *tahsil* of Almorā District, United Provinces, comprising the *parganas* of Bhābar Tallā Des, Dārmā, Sirā, Askot, Sor, and Kālī Kumaun, and lying between 28° 57' and 30° 35' N. and 79° 51' and 81° 3' E., with an area of 2,255 square miles. Population increased from 97,068 in 1891 to 122,023 in 1901. There are 1,462 villages, but no town. The demand for land revenue in 1903-04 was Rs. 65,000 and for cesses Rs. 8,000. Champāwat extends along the Kālī river from

the frontiers of Tibet to the thick forest in the submontane tract called the Bhābar. It thus contains the whole variety of scenery, climate, and physical aspects which are found in the District to which it belongs. One of the chief trade routes to Tibet passes from Tanakpur at the base of the hills to the Lipū Lekh and Dārmā passes. In 1903-04, 169 square miles were cultivated, of which 14 were irrigated.

Almorā Tahsil.—*Tahsil* of Almorā District, United Provinces, comprising the *parganas* of Johār, Dānpur, Chaugarhā, Gangolī, Bārahmandal, Phaldākot, and Pālī Pachhaun, and lying between 29° 26' and 30° 49' N. and 79° 2' and 80° 30' E., with an area of 3,164 square miles. Population increased from 318,900 in 1891 to 343,870 in 1901. There are 3,168 villages and two towns, the larger being ALMORA, the District and *tahsil* headquarters, population, 8,596. The demand for land revenue in 1903-04 was Rs. 1,65,000 and for cesses Rs. 21,000. This *tahsil* is situated entirely in the hills, and extends beyond the snowy range to the Tibetan frontier, including the whole variety of physical features which have been described in the ALMORA DISTRICT. The south-west drains into the Rāmgaṅgā, but most of the drainage passes east or south-east to the Kālī. Out of 294 square miles cultivated in 1903-04, 25 were irrigated.

Askot.—Estate in Almorā District, United Provinces, situated along the Kālī river and comprising 142 villages with an area of 400 square miles. The land revenue payable to Government is Rs. 1,450 and the cesses amount to Rs. 232, while the rent-roll is about Rs. 4,200. (The estate belongs to a Surajbansī Rājput, claiming descent from a younger branch of the Katyūri Rājās who once ruled Kumaun, and the head of the family bears the title of Rajwār. The Rajwārs of Askot were conquered by the Chands, but were left in possession of their estate on payment of tribute. In 1845 the estate was settled with the village occupants as a *zamīndārī* in the plains, but subsequently the whole *taluka* was settled with the Rajwār, who may now extend cultivation to his own profit, but cannot interfere with the possessions of the permanent tenants, as recorded in the village papers.

Almorā Town.—Municipality, cantonment, and headquarters of the Almorā District, United Provinces, situated in 29°

36' N. and 79° 40' E. Population, including cantonments, 8,596 (1901). Almorā became the headquarters of the Chand Rājās in the 16th century. In 1744 the Rohillas sent a Muhammadan force for the first time into the hills. They captured and plundered Almorā, but after a few months retired, disgusted with the poverty of the country and the rigours of the climate. At Sitoli, close to Almorā, was fought the decisive battle with the Gurkhas, which ended in the cession of the whole Division to the British in 1815. The town is situated on a bare ridge running north-west and south-east for about two miles, with an elevation of 5,200 to 5,500 feet. It is the headquarters of the London Mission and American Methodist Episcopal Mission in the District, and contains a leper asylum and a dispensary. Almorā was constituted a municipality in 1864. In 10 years ending 1901 the average income and expenditure were Rs. 9,500. In 1903-04 the income was Rs. 12,300, chiefly derived from octroi, Rs. 8,000, and the expenditure was Rs. 20,000, including Rs. 6,000 spent on water-works. An excellent water-supply has recently been perfected. The cantonment is usually garrisoned by Gurkhas, and the cantonment fund had an income and expenditure of Rs. 3,000 in 1903-04. Almorā has a considerable trade and is a distributing centre for the products of the plains and imported goods. The chief educational institution is the Ramay College, which includes a small college class of about 13 pupils and a school department with 301. The municipality maintains 4 schools, attended by 166 pupils, and there are two others with more than 300.

Anta Dhurā.—A pass on the Tibetan frontier of Almorā District, United Provinces, situated in 30° 35' N. and 80° 11' E. It is important as lying on the most direct route from Tanakpur at the foot of the hills to Gyūnimā and to the mart of Gartok in Tibet, which has recently been declared open. The pass is, however, difficult for travellers. It traverses three ridges of a range at right angles to the dividing ridge between Tibet and British territory at a height of 17,300 to 17,600 feet, and snow lies on the pass for eleven months in the year.

Bāgeshwar.—Village in Almorā *tahsil* and District, United Provinces, situated in 20° 51' N. and 79° 48' E., at the confluence of the Sarjū and Gomatī, which form a tributary of the Kālī or

SARDA. Population fluctuates considerably, and is about 800 in the autumn. The village was formerly a great trade centre for the exchange of the produce of Tibet against that of the plains and also imported goods, but the Bhotiā merchants now travel to the submontane marts. Bāgeshwar is also a place of pilgrimage and contains a temple built about 1450, but an older inscription records a grant to a temple here by a Katyūri Rājā. There are some curious tombs made of tiles which are assigned by tradition to Mughal colonies planted by Timūr. A dispensary is maintained, and there is a small school with 24 pupils.

Baijnāth.—Village in *tahsil* and District Almorā, United Provinces, situated in 29° 55' N. and 79° 37' E., on a cart-road from Kāthgodām. Population 148 (1900). Baijnāth lies in the centre of the Katyūr valley, and was formerly known as Kārthikeyapura, a capital of the Katyūri Rājās. On a neighbouring hill stands an old temple, sacred to Kālī, at which kids and buffalo calves are sacrificed to the goddess, especially at the Dasahra. Other old temples are to be seen in the valley and some copper-plates are preserved; inscriptions found here yield a series of dates from 1202. The valley now contains several tea plantations. A dispensary is maintained at Baijnāth.

Biāns.—A *patti* or division of *pargana* Dārmā, *tahsil* Champāwat, District Almorā, situated in the extreme north-east corner of the District. The trade route from TANAKPUR to Tibet along the Kālī river crosses the frontier in this tract by three passes: the Lampiya Dhurā (18,000 feet), the Mangsha Dhurā, and the Lipū Lekh (16,750). The last mentioned is the easiest route, and leads directly to the Tibetan mart of Taklakot, and to the Mānasarowar lake and Mount Kailās, the sacred places visited by Hindus.

Devī Dhurā.—Station on the road between Almorā and Champāwat, situated in 29° 25' N. and 79° 52' E., 29 miles from Almorā. Between two groups of colossal blocks of grey granite which are sacred to Mahādeo, Varāhī Devī, and Bhīm Sen is a celebrated temple where many goats and buffaloes are offered at a fair in June or July. Two boulders close by exhibit deep fissures and curious marks.

Dwārāhāt.—Village in *tahsil* and District Almorā, United Provinces, situated in 29° 47' N. and 79° 26' E., 12 miles north

of Rānikhet. Population, 461 (1900). The place was once the residence of a branch of the Katyūri Rājās and the remains of very many beautifully-carved temples are scattered about. Some were desecrated by the Rohillas in the 18th century and are no longer used for worship. In the principal temple in the town are several images, two bearing inscriptions of the 11th century. Some curious tombs built of tiles have been referred to an invasion of the hills by the Mughals under Timūr. Two dispensaries are maintained here, one being supported by the American Mission. The village is becoming an important trade centre in the west of the Almora District.

Garbyāng.—An important station in Almora District, United Provinces, on the trade route from TANAKPUR to Tibet, situated in $30^{\circ} 8' N.$ and $80^{\circ} 52' E.$, near the junction of the Kuthī Yānkī and Kālāpāni, which form the Kālī or SARDA. The road divides at this place, one branch going to the Līpū Līkh pass and another to the Lampiṇa Dhurā and Mangsha Dhurā passes. A *peskhār* is posted here to watch the interests of travelers and pilgrims, and there is a branch of the American Methodist Mission. A small school contains 36 pupils.

Lehong.—Mountain range in Almora District, United Provinces, forming part of the Himālayan system, and separating BIANs from the Dārmā valley. It is crossed by a difficult pass, situated in $30^{\circ} 20' N.$ and $80^{\circ} 38' E.$, which is covered with snow throughout the year. The crest of the pass has an elevation of 18,912 feet above sea-level.

Milam.—Village in *tahsil* and District Almora, United Provinces, situated in $30^{\circ} 26' N.$ and $80^{\circ} 9' E.$ Population 1,733 (1900). The village is only inhabited in the summer, when it is the residence of the Bhotiā traders with Tibet. It lies at an altitude of 11,400 feet, 13 miles south of the ANTA DHURA pass, to which access is obtained by a difficult and trying ascent. Below the village, near the Gorī stream, is a considerable stretch of alluvial land, which in summer produces buckwheat and barley. The surrounding country is bleak and desolate, but presents a scene of peculiar grandeur. Lofty snow mountains shut in the valley, and waterfalls are numerous and often of considerable beauty. The London Mission has a station here, and there is a school with about 50 pupils.

Nandā Devī.—The highest mountain in the British Empire, situated in $30^{\circ} 23'$ N. and $79^{\circ} 58'$ E. in the Almorā *tahsīl* and District, United Provinces. The elevation above the sea-level is 25,661 feet. The peak is a pyramid of grey rock coated with ice, and its sides rise at an angle of about 70° far above the surrounding snow-clad mountains. The Hindus regard the clouds of snow blown off the summit by the wind as smoke from the kitchen of the goddess Nandā.

Pindarī.—Glacier in the Almorā *tahsīl* and District, United Provinces, situated between $30^{\circ} 16'$ and $30^{\circ} 17'$ N. and 80° and $80^{\circ} 3'$ E. The glacier is fed by the snow from the lofty peak of Nandā Kot and other mountains lying north of it, and is the source of the Pindar river, a tributary of the Alaknandā, which flows into the Ganges.

Rānikhet.—Military sanitarium in the Almorā *tahsīl* and District, United Provinces, situated in $29^{\circ} 38'$ N. and $79^{\circ} 26'$ E. It is situated at the junction of cart-roads leading to the foot of the hills at Kāthgodām (49 miles) and Rāmnagar (56 miles). Population in summer, 7,705 (1900) including 2,236 Europeans, and in winter 3,153 (1901). The cantonment is situated on two ridges, Rānikhet proper, elevation 5,983 feet and Chaubattiā, elevation 6,942 feet. The place is occupied by British troops throughout the summer, and the accommodation is being enlarged. A dispensary is maintained here. It was at one time proposed to move the headquarters of the Government of India from Simla to Rānikhet. The cantonment fund had an average income and expenditure of Rs. 21,000 in the 10 years ending 1901. In 1903-04 the income was Rs. 29,000 and the expenditure Rs. 33,000. An excellent system of water-works has recently been carried out.

Tanakpur.—Trading centre in *tahsīl* Champāwat, District Almorā, United Provinces, situated in $29^{\circ} 4'$ N. and $80^{\circ} 7'$ E., at the foot of the Himālayas, near the Sūrdā. A railway from Tanakpur to Pilibhit is under consideration. Population, 692 (1901). The village was founded in 1880, when the older mart of Barmdeo was washed away by floods. This is now one of the most important places at which the traders from Tibet meet the merchants of the plains. Borax and wool are brought down by the Bhotiās, who carry back sugar and cloth. There is also

a large trade with the hill tracts of Almorā District and Nepāl, from which turmeric, chillies, and *ghī* are exported, while sugar and salt are imported. Tanakpur is situated in the Bhābar, and the timber, catechu, hides, honey, and minor forest produce of that tract are collected here for sale. The trading season only lasts from November to May, and by the middle of June the place is deserted. The bazar contains a large and increasing number of stone houses and shops, while huts are erected annually by the smaller traders. Tanakpur is the winter headquarters of a sub-divisional officer.

Garhwāl District.—Western District of the Kumaun Division, United Provinces, lying between $29^{\circ} 26'$ and $31^{\circ} 5' N.$ and between $78^{\circ} 12'$ and $80^{\circ} 6' E.$, with an area of 5,629 square miles. It is bounded on the north by Tibet; on the south-east by the Almorā and Nainī Tāl Districts; on the south-west by Bijnor; and on the north-west by the Tehri State. The District extends from the submontane plain across the central axis of the Himālayas to the watershed between the drainage systems of the Sutlej and the Ganges. It consists for the most part of rugged mountain ranges, which to the casual observer appear to be tossed about in the most intricate confusion. The ranges can, however, be ultimately traced to the great watershed, and by their general direction from north-east to south-west determine the course and direction of the drainage channels. The greater part of the District is included in the basin of the GANGES, the principal tributary of which is the Alaknandā. This stream is formed by the junction of the Bishangangā with the Dhaulīgangā, both rising near the watershed and flowing south-west, their upper courses being divided from that of the Mandākinī, which joins the Alaknandā at Rudraprayāg, by a massive spur of mountains. At Devaprayāg, on the border of Tehri State, the Alaknandā meets the Bhāgirathi, their valleys being separated by another lofty range. The combined stream now assumes the name of the Ganges and from the point of junction separates Garhwāl from Tehri and subsequently from Dehra Dūn District. The great central axis of the Himālayas, lying about 30 miles south of the watershed, includes two ranges of lofty snow-clad hills on either side of the Alaknandā. From the eastern range, which culminates in the giant peak of NANDA DEVI, a series of spurs

Boundaries, configuration, and hill and river systems.

divides the valleys of the Birehī, Mandākinī, and Pīndar, all tributaries of the Alaknandā, from each other. Further south the Dūdātoli range forms the boundary between the Ganges basin and the Rāmgaṅgā which drains the south-east of the District. The principal peaks are—Trisūl, 23,382 feet; Dūnagiri, 23,161 feet; Kāmet, 25,413 feet; Badrināth, 23,210 feet; and Kedārnāth, 22,853 feet. The rivers flow in narrow valleys which may rather be described as gorges or ravines, and in their lower course some of them are used for rafting timber. There are a few small lakes; but the GOHNA lake is the only one of importance. A narrow strip of Bhābar or waterless forest land, some 2 or 3 miles in breadth, intervening between the southern base of the hills and the alluvial lowlands of Rohilkhand, forms the only level portion of the District.

Botany.

The Bhābar and the hills immediately above it are covered with a dense forest growth, the principal tree being *sāl* (*Shorea robusta*). From about 4,000 to 6,000 feet the place of *sāl* is taken by *chir* (*Pinus longifolia*), which then yields to the *bānj* oak (*Quercus incana*), and tree rhododendron. Above 8,000 another oak, *tilonj* (*Quercus dilatata*) is found, and beyond 10,000 feet the chief trees are various firs, yew, and cypress. The birch grows up to 12,000 feet, but beyond this limit lies a vast expanse of grass, variegated in the summer by rich flowers of Alpine species.

Geology.

On the south the narrow sub-Himālayan zone displays a great sequence of fresh-water deposits resembling the geological formation of the SIWALIKS. The outer Himālayan zone and central axis include enormous tracts of highland country and snowy peaks composed in their southern half of slates, massive limestones sometimes succeeded by bands of mesozoic (?) limestone and nummulitic shales, and in their more northern portion of schistose slates, quartz schists, and basic lava flows. The schistose slates pass into mica schists with isolated patches of gneissose granites or massive bands, as along the central axis. To the north of the central axis, the Tibetan watershed, in the neighbourhood of the Niti Pass, introduces an entirely new and vast sequence of marine strata from silurian to cretaceous, including a fine development of trias.

Fauna.

Elephants are found in the Bhābar, and tigers in the same locality and in the lower hills. Leopards are common in all parts,

of the District. Three kinds of bear are known, and other beasts of prey include the wolf, jackal, and wild dog. *Sāmbhar* or *jarau* (*Rusa Aristoteles*) and the *gural* or chamois are also found. The District is rich in bird life, and the rivers contain fish, including mahseer.

The great variations in altitude cause a corresponding diversity in the climate of different parts of the District. In the Bhābar conditions resemble those of the adjacent submontane Districts. Heat is excessive in the river valleys from March to October, while the temperature falls very low in the winter. In open situations the climate is more equable.

The maximum falls occur at the outer edge of the Himālayas, and in the interior near the foot of the snows. In these localities the annual rainfall is about 100 inches. Where there are no high mountains the precipitation is much less, and at Srinagar only 37 inches are received, though in places of the same altitude situated near lofty ranges the fall is as much as 50 inches. The snow line is at about 18,000 feet in the summer, but in the winter snow falls as low as 4,000 feet in the north of the District and 5,000 feet in the south.

The early history of Garhwāl is extremely obscure. Part of it was probably included in the kingdom of Brahmapura referred to by the Chinese traveller of the 7th century. The earliest dynasty of which records exist was that of the Katyūris. According to tradition they had their origin at Joshimath in the north of the District and then spread to the south-east and into the Almorā District. The country was subsequently divided among a series of petty chiefs. Local tradition states that a Rājā, named Ajaya Pāla, reduced the petty chiefs about the middle or close of the 14th century and settled at Dewalgarh; but a successor, named Mahipat Shāh, who lived early in the 17th century and founded Srinagar, was possibly the first of the line to establish real independence. The Garhwāl Rājās first came into conflict with their neighbours, the Chands of Almorā, about 1581, when Rudra Chand attempted, but without success, to invade Garhwāl. Subsequent attempts were also repulsed. In 1654 Shāh Jahān despatched an expedition to coerce Rājā Pirthi Shāh, which ended in the separation of Dehra Dūn from Garhwāl. The same Rājā, a few years later, robbed the unfortunate refugee,

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Sulaimān Shikoh, son of Dā'ī Shikoh, and delivered him up to Aurangzeb. Towards the close of the 17th century the Chand Rājās again attempted to take Garhwāl, and Jagat Chand (1708—20) drove the Rājā from Srīnagar, which was formally bestowed on a Brāhman. Pradīp Shāh of Garhwāl (1717—72), however, recovered Garhwāl, and held the Dūn till, in 1757, Najib Khān, the Rohilla, established his authority there. In 1770 Lalat Shāh of Garhwāl defeated the usurper who was ruling in Kumaun, and allowed his son, Parduman Shāh, to become Rājā of that territory. A few years later, on the death of his brother, Parduman Shāh held both Garhwāl and Kumaun for a year; but he then preferred the more certain tenure of his own dominions to the intrigues of Almorā, and retired to Srīnagar. The Gurkhas conquered Almorā early in 1790 and made an attempt on Garhwāl, but withdrew owing to trouble with the Chinese in Tibet. Internal dissensions prevented another advance for some years; but in 1803 the Gurkhas overran Garhwāl and also took Dehra Dūn. Parduman Shāh fled to the plains and collected a force, but perished near Dehra with most of his Garhwālī retainers in 1804. The Gurkha rule was severe; and when the British conquered the Kumaun Division in 1815, in consequence of aggressions by the Gurkhas, the change was hailed with delight by the hill men. The whole Division was administered directly by a Commissioner; but in 1837 Garhwāl became a separate sub-division under an Assistant Commissioner, and in 1891 was constituted a District.

Archæo-
logy.

The District contains a number of temples of great sanctity esteemed by the Hindus of all parts of India. Among these may be mentioned the shrines of BADRINATH, JOSHIMATH, KEDARNATH, and PANDUKESHWAR. At Gopeshwar an iron trident 10 feet high bears an inscription of the 12th century, recording the victories of Anekamalla, possibly a ruler of Nepāl. Many copper-plates are preserved in temples or by individuals, which are valuable for their historic interest.

The
people.

Garhwāl contains 3 towns and 3,600 villages. Its population is increasing steadily: 1872, 310,288; 1881, 345,629; 1891, 407,818; 1901, 429,900. The whole District forms a single *tahsil*, sometimes called Paurī from its headquarters. The chief towns are the cantonment of LANDSDOWN, SRINAGAR, and

KOTDWARA. PAURI, the District headquarters, is a more village. The following table gives the main statistics of population in 1901 :—

Area in square miles.	Number of—		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
	Towns.	Villages.				
5,029	3	8,600	429,900	76	+ 5.4	27,410

Nearly 99 per cent. of the total are Hindus, and Musalmāns only number 4,400. The density of population is low, as is usual in Himālayan tracts. About 97 per cent. of the people speak Central Pabāri of the Garhwāli dialect.

More than 97 per cent. of the total Hindu population are included in the three castes Rājputs or Kshattris (245,000), Brāhmans (101,000), and Doms (68,000). The two former are, however, divided into the descendants of settlers from the plains, and members of the great Khas tribe who are regarded as autochthonous. The Doms are labourers and artisans. Garhwālis and Kumānis still preserve a certain degree of antagonism towards each other. The District is essentially agricultural, and agriculture supports 89 per cent. of the total. Two battalions of the Indian Army are recruited entirely in Garhwāl.

There were 588 native Christians in 1901, of whom 536 were Methodists. The American Methodist Mission was founded in 1859 and has a number of stations in the District.

The most striking feature of the cultivated area is its scattered nature. The richest land lies in the river valleys where these widen out, and in places the rivers have left a series of terraces. Elsewhere cultivation is confined to those parts of the hillside which are the least steep, and even here terracing is required, each field being protected by an outer wall of stones. There is also some temporary cultivation, called *katil*, in which the land is not terraced. The shrubs and bushes are out and

burnt and the land is dug with a hoe. After cropping it remains fallow for a number of years. In the extreme north crops are sown in the spring and reaped in the autumn; but in the greater part of the District two crops are grown, ripening in the spring and in the autumn, as in the plains. The Bhābar or submontane tract resembles the plains, but cultivation is here entirely dependent on irrigation.

Chief
agricul-
tural sta-
tistics and
principal
crops.

The tenures are those of the KUMAUN DIVISION. Detailed agricultural statistics are not maintained, but the total cultivated area was 410 square miles in 1903-04. The principal food crops are rice, *maruā* (*Eleusine coracana*), *ghangorā* (*Oplismenus frumentaceus*), wheat, and barley. The District also produces small millets, amaranth, sesamum, peas, pulses, pepper, ginger, turmeric, and mustard. Rice grows up to about 5,000 feet, and *ghangorā* and *maruā* to about 6,000. Above that altitude amaranth is the chief autumn crop; only one crop can be grown annually above 8,000 feet and *phāpar* (*Fagopyrum tataricum*) is largely cultivated. Wheat grows up to 10,000 feet, and barley and mustard up to 11,000 feet. In the Bhābar maize, tobacco, and cotton are also cultivated.

Improve-
ments in
agricul-
tural
practice.

Between 1864 and 1896 the cultivated area increased by about 50 per cent. and the rise in population is causing a further increase. Apart from the fact that the area under the plough is rising, the cultivated land is also steadily improving. The soil in the hillsides is usually very thin, and when fresh land is broken up, only a small excavation can be made in the first year. The soil is gradually improved by the weathering of rock and the annual cultivation, and the fields become broader and higher, the outer walls being gradually raised. There have, however, been no improvements in agricultural methods, and no new staples have been introduced. Advances from Government are only taken in adverse seasons, and 2½ lakhs were advanced in 1890-91 and 1892-93.

Irriga-
tion.

About two per cent. of the cultivated area is irrigated. In the hills irrigation is usually supplied by small channels conducted from rivers along the hillsides to the fields which are to be irrigated. Only the smaller streams are used for this purpose, and the supply is effected entirely by gravitation, no artificial means of lifting being employed. Cultivation in the

Bhābar is entirely dependent on irrigation, which is supplied by small canals.

The outer ranges of hills are covered with forests which Forests. have been formally reserved and are administered by officers of the Forest department, including an area of 579 square miles. Bamboos and *sāl* are the chief products, and firewood and grass are also extracted. The hills near Lansdowne are covered with pines and oak. In addition to these forests the whole of the waste land has been declared District protected forest in charge of the Deputy Commissioner, and elementary regulations for conserving the forests have been framed, with beneficial results. The reserved forests belong to the Ganges and Garhwāl forest divisions, and bring in a revenue of about 1·5 lakhs annually, while the District forests yield about Rs. 20,000.

Copper and iron were formerly worked to some extent, but Minerals. only for local use, and little is extracted now. Minute quantities of gold are found in some of the rivers. Lead, arsenic, lignite, graphite, sulphur, gypsum, soapstone, asbestos, alum, and stone-lime have also been observed.

The manufactures of the District are few and unimportant. Arts and Manufactures. Hemp is woven into coarse cloth and rope, and blankets are made. Leather goods, mats, baskets, wooden bowls, and glass bangles are made in a few places for local use. Stone is carved in one or two localities.

The most important trade is that with Tibet. Salt, wool, Com. merce. sheep and goats, ponies and borax are imported, and grain, cloth, and cash exported. The trade is chiefly in the hands of the Bhotiās, who alone are permitted to cross the frontier, and the merchandise is carried on *yāke*, *jūlas* (a cross between the yak and the cow), asses, sheep, and goats, or even by the Bhotiās themselves. In the west of the District there is some trade with the Tehri State, which exports grain in return for salt from Tibet. The borax from Tibet and some portion of the other imports are taken to Kotdwāra or Rāmnagar at the foot of the hills. Other exports include *phī*, chillies, ginger, and turmeric, the produce of the lower valleys, and forest products. The resources of the District are considerably increased by the pilgrim traffic to the sacred shrines, and by the money earned by the hundreds of men who work as coolies in the hill stations of Simla,

Nainī Tāl, and Mussoorie throughout the summer. SRINAGAR and KOTDWARA are the two chief marts in the District, but most of the trade is done in villages.

**Railways
and
Roads.**

A branch of the Oudh and Rohilkhand Railway from Najibābād to Kotdwāra just reaches the foot of the hills. There are 1,063 miles of roads, of which only one mile is metalled. Of the total, 462 miles are maintained by the Public Works department, 352 miles being repaired at the cost of Provincial funds. Avenues are maintained on 6 miles. The roads are almost entirely bridle-paths and in places are barely practicable for laden animals; but a cart-road is under construction from Kotdwāra to Lansdowne. The pilgrim route and the roads from Kotdwāra to Lansdowne and Srinagar are the chief tracks.

Famines.

The District is more subject to distress from drought than the neighbouring District of Almorā; but the scarcity is usually local. In 1867 the spring crops failed in the southern half of the District; Government advanced Rs. 10,000, and the people carried up grain from the Bhābar. The scarcity of 1869-70 was little felt, as the export of grain was forbidden. When traffic was allowed large profits were made by the export of grain to Bijnor. The District suffered severely in 1877-78, when many deaths occurred from privation. In 1889-90 both the autumn and spring crops failed, and Government imported grain and gave advances. A similar failure in 1892, which affected most of the District, was met in the same way. In 1896 relief works were opened and Rs. 27,000 were spent; but the works were abandoned when the rate of wages was reduced below the market rate.

**District
staff.**

The Deputy Commissioner is assisted by 3 Deputy Collectors recruited in India, of whom one is stationed at headquarters, one at Lansdowne, and one at Chamoli. Each of these is in charge of a sub-division of the District, the limits of which can be varied by the Deputy Commissioner. There is only one *tahsildār* in the whole District, who is posted to Paurī, the District headquarters.

**Civil Jus-
tice and
Crime.**

The Deputy Commissioner and the Deputy Collectors and *tahsildār* all have civil, revenue, and criminal powers, the first-named being District Judge. The Commissioner of Kumaun sits as a High Court in civil cases and as a Sessions Judge. Crime is very light.

The short rule of the Gurkhas was sufficiently harsh to cause a great diminution in the prosperity of the District. A formal settlement of the land revenue was indeed made, but the local officers disregarded it. In the last year of the Gurkha government only Rs. 37,700 could be collected out of a demand of Rs. 91,300. The first British settlement was made in 1815, as a temporary arrangement for one year, by farming whole *parganas* to the *pargana* headmen for the sum collected in the previous year, and it yielded Rs. 36,000. Succeeding settlements were made by villages, but the revenue was still fixed on the basis of previous collections for a whole *pargana* at a time, and was distributed over villages by the village headmen. Six revisions were carried out between 1816 and 1833, and the revenue rose to Rs. 69,200. In 1822 the first attempt was made to prepare a rough record-of-rights, which consisted merely of a statement of the nominal boundaries of each village, an enumeration of the blocks of cultivation with the estimated area of each, and the names of the proprietors. In 1837 Garhwāl was placed in charge of a separate officer temporarily subordinate to the Commissioner of Bareilly, who made the first regular settlement. Each village was inspected and a fresh estimate was made of the cultivated area, which was divided into 6 classes, according to its quality. The new demand was fixed for 20 years on a consideration of this estimate and of the previous fiscal history of the village, the total amounting to Rs. 68,700. At the same time a careful record-of-rights was prepared in great detail and was the means of settling innumerable disputes. The next revision was preceded by a complete measurement of the cultivated area, and was carried out on a new plan. It was assumed, after calculating the outturn of the principal crops, that terraced land generally was worth so much an acre. Land was divided into 5 classes, and a scale of relative value was fixed. The valuation was made by reducing the total area to a common standard and applying the general rate; but other checks were also used, and in particular the population of each village was considered. The revision was completed in 1864, and the demand was raised from Rs. 69,300 to Rs. 96,300. The revenue was collected in full with an ease unknown in any District of the plains. In 1890 preparations commenced for a new revision

Land
Revenue
adminis-
tration.

which was to be based on a scientific survey; but after a year's experience it was found that a complete survey would cost 5 lakhs, and the cadastral survey was only completed for 971 square miles. A modification of the system followed in the plains, by which villages are classified in circles according to their general quality, was introduced; but on the whole the methods of the previous settlement were adhered to, and a new valuation of produce and revised scale of relative values were used to calculate the land revenue. In the area which was not surveyed cadastrally the assessment was first fixed for each *patti* (a division of a *pargana*) and distributed in consultation with the village headmen. In the extreme north of the District the revenue also took into account the produce of the neighbouring jungles. The result was a total assessment of Rs. 1,66,000. The small Bhābar cultivation is treated for the most part as a Government estate on which rent is fixed by the Deputy Commissioner. The gross revenue of the District is included in that of the KUMAUN DIVISION.

Local
self-gov-
ernment.

There are no municipalities in Garhwāl, but two towns are administered under Act XX of 1856. Beyond the limits of these, local affairs are managed by the District board, which in 1903-04 had a total income of Rs. 61,000, chiefly derived from a grant from Provincial revenues. The expenditure in the same year was Rs. 64,000.

Police and
Jails.

Regular police are permanently maintained at Srinagar and at Kotdwāra, and during the pilgrim season at six other places. The whole force consists of 11 subordinate officers, 130 constables, and 6 town police, and is under the District Superintendent of Kumaun. Elsewhere there are no police, but the *patwāris* have powers corresponding to those of sub-inspectors in the plains. The District jail contained a daily average of 12 inmates in 1903.

Educa-
tion.

Garhwāl takes a very high place as regards the literacy of its inhabitants, of whom 6·4 per cent. (13 males and ·2 females) could read and write in 1901. The number of public schools increased from 59 in 1880-81 to 76 in 1900-01, and the number of pupils from 2,746 to 2,813. In 1903-04 there were 118 such schools with 4,527 pupils, of whom only 15 were girls; all the students but 187 were reading in primary classes. The District also contained 3 private schools with 350 pupils. Two schools

are managed by Government and 101 by the District board, which contributed Rs. 22,000 out of a total expenditure of Rs. 31,000. Receipts from fees were only Rs. 1,200.

There are 10 hospitals and dispensaries with accommodation for 84 in-patients. In 1903, 58,000 cases were treated including those of 653 in-patients, and 1,514 operations were performed. The expenditure in the same year amounted to Rs. 12,000, about Rs. 10,000 of which is derived from endowments of land called *sadābart*. Hospitals and dispensaries.

About 41,000 persons were successfully vaccinated in 1903-04, representing the very high proportion of 95 per 1,000 of population. (*N.-W. P. Gazetteers*, Vols. X-XII, 1882—86 [under revision] ; E. K. Pauw, *Settlement Report*, 1896.) Vaccination.

Badrināth—Peak of the central Himālayan axis in Garhwāl District, United Provinces, reaching to a height of 23,210 feet above the sea. From the glaciers on its sides the Bishan-gangā, an affluent of the Alaknandā river, and several other tributaries take their rise. On one of its shoulders, at an elevation of 10,400 feet, and on the road from SRINAGAR to the MANA Pass, stands a shrine of Vishnu, which also bears the name of Badrināth (30° 45' N. and 79° 30' E.). The original temple is said to have been built by Sankarāchārya; but several buildings have been swept away by avalanches. The present structure is modern. It is conical in shape, and is surmounted by a small cupola covered with plates of copper and surmounted by a gilded ball and spire. Below the shrine a sacred tank stands on the hillside supplied from a thermal spring by means of a spout in the shape of a dragon's head. Pilgrims of both sexes bathe in the holy pool. The god is daily provided with dinner, and his comfort is carefully ensured in many other ways. The vessels on which he is served are of gold and silver, and a large staff of servants attend to his wants. The chief priest, known as the *Rāwal*, is always a Brāhman of the Nambūri class from southern India. In 1896 a suit was instituted in the civil court and a scheme of management was framed, by which the *Rāwal* manages the secular affairs of the temple, subject to the control of the Rājā of Tehri State. A large number of villages have been assigned for the maintenance of the temple, with a revenue demand of about

Rs. 7,000. The temple is annually closed about November and the priests remove the treasure to JOSHIMATH for the winter returning to Badrināth in May. Immense numbers of pilgrims annually visit Badrināth and other shrines in the hills.

Joshimath.—Village in Gārhwal District, United Provinces, situated in 30° 33' N. and 79° 35' E., at an elevation of 6,107 feet above sea-level and about 1,500 feet above the confluence of the Dhauli and Bishangangā, the combined stream being known as the Alaknandā. Population 468 in summer (1900) and a little larger in winter. It is chiefly remarkable as the winter headquarters of the *Rāwal* or chief priest of the temple of BADRINATH, who retires here after the snows have rendered the higher shrine inaccessible. The village contains several ancient temples, some of which have been much damaged by earthquakes. A police-station is opened here during the pilgrim season.

Kedārnāth.—Famous temple and place of pilgrimage in Garhwāl District, United Provinces, situated in 30° 44' N. and 79° 5' E., immediately below the snow peak of Mahāpanth at an elevation of 11,753 feet above sea-level. It marks the spot where Sadāsiva, a form of Siva, in his flight from the Pāndavas, assumed the form of a buffalo and attempted to dive into the earth to escape his pursuers, but left his hindquarters on the surface. A rook is still worshipped as part of the deity, and the remaining portions of his body are revered elsewhere, viz. at Tungnāth, Rudranāth, Madhyamaheshwar, and Kalpeshwar. Four miles from the temple on the way to the Mahāpanth peak is a precipice known as the Bhairab Jhāmp, where devotees formerly committed suicide by flinging themselves from the summit; but the British Government suppressed this practice shortly after annexation. The *Rāwal* or chief priest of Kedārnāth is always a Jangam from Mysore, and he and the priests of the other temples mentioned above are subordinate to the *Rāwal* of BADRINATH. Large numbers of pilgrims annually visit Kedārnāth.

Karnaprayāg.—One of the five sacred confluences of the Alaknandā, where this river is joined by the Pindar (see PINDARI). The village is situated at a height of 2,300 feet above the sea in 30° 16' N. and 79° 15' E. Population 243 (1901).

It contains a number of temples and also a dispensary, and during the summer a police-station.

Kotdwāra.—Town in Garhwāl District, United Provinces, situated at the foot of the hills, in $29^{\circ} 45' N.$ and $78^{\circ} 32' E.$, close to the terminus of a branch of the Oudh and Rohilkhand Railway, and on the small river Khoh. Population 1,029 (1901). This is the most important mart in the District, and supplies the south of Garhwāl with cloth, sugar, salt, cooking utensils, and other miscellaneous articles imported from the plains. It is also the chief centre and exchange for the Tibetan trade of the District. The Bhotiās bring down borax and take back pulse, sugar, tobacco, and cloth. Forest produce, mustard, rape-seed, chillies, and turmeric are exported to the plains. Kotdwāra is the headquarters of the Garhwāl Bhābar, and contains a police-station, dispensary, and a branch of the American Methodist Mission. It is administered under Act XX of 1856, with an average income and expenditure of Rs. 1,300.

Lansdowne.—Cantonment on the outer Himālayas, Garhwāl District, United Provinces, situated in $29^{\circ} 52' N.$ and $78^{\circ} 41' E.$, on a ridge 5,500 to 6,600 feet above sea-level. A cart-road from Kotdwāra railway station, 19 miles away, is now (1904) being constructed. Population 3,943 (1901). The cantonment was founded in 1887. It extends through beautiful pine and oak forests for a distance of more than three miles, and can accommodate three full battalions of native troops. Lansdowne is also the headquarters of the Ganges forest division, and of a Deputy Collector belonging to the District staff. In the 10 years ending 1901 the average income and expenditure of the cantonment fund were Rs. 7,500. In 1903-04 the income was Rs. 11,900 and expenditure Rs. 12,600.

Mānā.—A village in Garhwāl District, United Provinces, situated on the Saraswatī, an affluent of the Bishangangū, in $31^{\circ} 5' N.$ and $79^{\circ} 26' E.$, 10,560 feet above the sea. It lies close to a pass of the same name, also known as Chirbitya-lū or Dugri-lū, which has an elevation of 18,650 feet. Though very lofty, it is one of the easiest passes into Tibet from the south, and is therefore much used by Hindu pilgrims to lake Mānasarowar. The village is chiefly inhabited by Bhotiā traders with Tibet.

Niti.—Pass in Garhwāl District, United Provinces, situated in $30^{\circ} 58'$ N. and $79^{\circ} 53'$ E. The pass is situated on the watershed between the Sutlej and Ganges basins at a height of 16,628 feet above sea-level, and gives access to Tibet. A village named Niti is situated on the bank of the Dhauli river, 13 miles south of the pass, at an elevation of 11,404 feet above the level of the sea. It contains a population of 267 (1900), during the summer months, but is deserted in winter.

Pāndukeshwar.—Village in Garhwāl District, United Provinces, situated in $30^{\circ} 38'$ N. and $79^{\circ} 34'$ E., on the route from SRINAGAR to the MANA Pass, at an elevation of 6,300 feet above sea-level. Population 298 (1901). It is said to take its name from the Pāndava brothers, who retired here to end their days in pious observances, after giving up the kingdom of Hastināpur. There is a celebrated temple of Yog-badhī, in which 4 or 5 copper-plates are preserved, which bear inscriptions of the Katyūri Rājās. A school contains 23 pupils.

Paurī.—Headquarters of the Garhwāl District, United Provinces, situated in $30^{\circ} 15'$ N. and $78^{\circ} 46'$ E., at an elevation of 5,390 feet above sea-level. Population 480 (1901). The village lies on the northern slope of the Kandauli hill, with a magnificent view of a long line of snow-clad mountains. Paurī was chosen as the headquarters of the Garhwāl sub-division of the Kumaun District in 1840. Besides the usual offices it contains a dispensary and jail. The American Methodist Mission has its headquarters here, and maintains a dispensary, female orphanage, and schools for boys and girls.

Rudraprayāg.—Temple in Garhwāl District, United Provinces, situated in $30^{\circ} 18'$ and 79° N. at the confluence of the Mandākinī and Alaknandā, 2,300 feet above sea-level. It is one of the five sacred confluences (*prayāg*) in the upper course of the Ganges headwaters, and is visited by pilgrims on their way to KEDARNATH.

Srinagar.—Town in Garhwāl District, United Provinces, situated in $30^{\circ} 15'$ N. and $78^{\circ} 46'$ E., on the left bank of the Alaknandā, at an elevation of 1,706 feet above sea-level. Population 2,091 (1901). The old town was founded in the 17th century and became the capital of Garhwāl; but it was washed away in 1894 in the flood caused by the bursting of the GOMNA

Lake. The new town has been built on a higher site and is well laid out. Srinagar ranks next to KOTDWARA in importance, and owes its trade chiefly to its position on the pilgrim route. It contains a fine hospital and a police-station, and is administered under Act XX of 1856, with an average income and expenditure of Rs. 1,100. A private school contains 198 pupils.

Cross-References (for Imperial Gazetteer only).

Byāns.—A portion of the Almorā District near the Tibetan border, see BIANs.

Rānībāgh.—Village in the outer Himālayas, Nainī Tāl District, see KATHGODAM.

Untā Dhurā.—Pass to Tibet in Almorā District, United Provinces, see ANTA DHURA.

